

# Career Handbook



## Master of Data Science



THE UNIVERSITY OF BRITISH COLUMBIA

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# Introduction

## INTRODUCTION TO CAREER ADVISING

Empowering your journey towards a thriving data science career, the Masters of Data Science program at UBC offers an array of dedicated resources and personalized guidance to amplify your success. MDS has two dedicated Career Advisors available to support students individually with their career planning, job search, resume, cover letter, LinkedIn profile writing and interview preparation. The Career Advisor also organizes special careers events for students, creates and updates data science-specific career resources, and keeps MDS students notified about upcoming relevant career events on campus.

This career handbook is designed to provide resources for career planning, job and internship search strategies, resume and cover letter writing, LinkedIn profile writing and interview preparation.

## PROFESSIONAL DEVELOPMENT COMPETENCIES

### Career Advancement

- Identify and articulate skills, knowledge, experience and strengths to advance career path
- Develop and expand expertise
- Build networking relationships
- Empowered representation for career advancement opportunities

### Communication

- Express skills and achievements coherently
- Presentation skills
- Active listening for comprehension and appropriate response

### Interpersonal Skills

- Build impactful relationships
- Problem solving including negotiation and resolving conflict
- Team work

### Leadership

- Achieving goals with strategic planning
- Share knowledge and experience
- Learn to work with group dynamics

### Personal Development

- Work-life balance
- Personal values, accountability and self-awareness
- Achievement of goals

### Social Responsibility

- Welcome diversity and broader social implications of decisions and actions
- Consider environmental and economic impact on actions
- Work with integrity and ethical reasoning

# Career Development Process

## 1.1 CAREER DEVELOPMENT PROCESS

Your career journey involves multiple cycles of decision-making. Cultivating self-awareness and strategic goal-setting are pivotal to your success.

As you navigate through these cycles, remember that your journey is empowered by your self-awareness and strategic mindset. Embrace the challenges, learn from them, and let your success story unfold.

### Job Search/Action Plan

- Resumes
- Interviews
- Researching your options

### Self-assessment

- Skills
- Values
- Interests

### Exploration

- Options
- Industry
- Career path

### Focusing

- Networking
- Connecting with companies
- How competitive is the market?

## 1.2 SKILLS SELF-ASSESSMENT

Assess your skills by placing a check next to those you feel are your strongest.

### Functional Skills Related to Working with People

- |  |   |   |
|--|---|---|
| <input type="checkbox"/> Delegate              | <input type="checkbox"/> Workshop Planning  | <input type="checkbox"/> Organize             |
| <input type="checkbox"/> Motivate              | <input type="checkbox"/> Projections        | <input type="checkbox"/> Chair Meetings       |
| <input type="checkbox"/> Oral Communication    | <input type="checkbox"/> Facilitate Groups  | <input type="checkbox"/> Recruitment          |
| <input type="checkbox"/> Written Communication | <input type="checkbox"/> Collaborate        | <input type="checkbox"/> Sell/Market          |
| <input type="checkbox"/> Rapport               | <input type="checkbox"/> Consult Others     | <input type="checkbox"/> Public Relations     |
| <input type="checkbox"/> Deal with Complaints  | <input type="checkbox"/> Child Care         | <input type="checkbox"/> Public Speaking      |
| <input type="checkbox"/> Active Listening      | <input type="checkbox"/> Social Events      | <input type="checkbox"/> Fundraising          |
| <input type="checkbox"/> Counsel               | <input type="checkbox"/> Negotiate          | <input type="checkbox"/> Financial Management |
| <input type="checkbox"/> Ask Questions         | <input type="checkbox"/> Supervise Others   | <input type="checkbox"/> Phone Calls          |
| <input type="checkbox"/> Teach/Guide           | <input type="checkbox"/> Persuade/Influence | <input type="checkbox"/> Manage Resources     |
| <input type="checkbox"/> Interpret             | <input type="checkbox"/> Train Others       | <input type="checkbox"/> Schedule Meetings    |
| <input type="checkbox"/> Coordinate Events     |   |   |

### Functional Skills Related to Working with Objects

- |  |  |  |
|--|--|--|
| <input type="checkbox"/> Computer Systems  | <input type="checkbox"/> Craft Skills          | <input type="checkbox"/> Operate Equipment     |
| <input type="checkbox"/> Precision Work    | <input type="checkbox"/> Physical Coordination | <input type="checkbox"/> Measure               |
| <input type="checkbox"/> Machine Work      | <input type="checkbox"/> Manual Dexterity      | <input type="checkbox"/> Record Keeping        |
| <input type="checkbox"/> Creative/Artistic | <input type="checkbox"/> Office Machines       | <input type="checkbox"/> Instruments/Precision |
| <input type="checkbox"/> Build/Construct   | <input type="checkbox"/> Mechanical Drawings   | <input type="checkbox"/> Work                  |
| <input type="checkbox"/> Repair/Maintain   | <input type="checkbox"/> Appraise/Estimate     |  |
| <input type="checkbox"/> Mechanical        | <input type="checkbox"/> Laboratory Work       |  |
| <input type="checkbox"/> Operate Equipment |  |  |

### Functional Skills Related to Working with Data

- |   |   |   |
|---|---|---|
| <input type="checkbox"/> Investigate          | <input type="checkbox"/> Write Composition        | <input type="checkbox"/> Financial Management |
| <input type="checkbox"/> Classification       | <input type="checkbox"/> Gather Information       | <input type="checkbox"/> Program              |
| <input type="checkbox"/> Abstract             | <input type="checkbox"/> Research                 | <input type="checkbox"/> Diagnose             |
| <input type="checkbox"/> Copy/Duplicate       | <input type="checkbox"/> Organize/Synthesize Data | <input type="checkbox"/> Observe              |
| <input type="checkbox"/> Store/Retrieve       | <input type="checkbox"/> Conceptual Ability       | <input type="checkbox"/> Innovate             |
| <input type="checkbox"/> Attention to Details | <input type="checkbox"/> Scientific Methodology   | <input type="checkbox"/> Analyze              |
| <input type="checkbox"/> Utilize Information  | <input type="checkbox"/> Statistical Analysis     | <input type="checkbox"/> Visual/Imaging       |

## 1.3 CAREER CHECKLIST

1

### Career Decision Making

- ☐ Meet with your Career Advisor to identify your industry, skills and interests
- ☐ Develop a resume
- ☐ Attend Career Workshops and Alumni Panel Talks

2

### Focus on Career Goals

- ☐ Meet with your Career Advisor regularly
- ☐ Update your resume
- ☐ Explore career skills and professional development competencies
- ☐ Network, network, network

3

### Strategies

- ☐ Do informational interviews
- ☐ Meet with your Career Advisor to create a job search strategy
- ☐ Update your resume
- ☐ More networking
- ☐ Create a LinkedIn profile

4

### Career Decisions

- ☐ Attend career workshops on how to network, build a resume, interview, etc.
- ☐ Find 3 references
- ☐ Analyze job offers



# Resume and Career Writing

## 2.1 RESUME WRITING

Your resume provides an overview of your unique set of experiences in relation to the types of roles to which you aspire. Think of your resume as a personal marketing tool that demonstrates how your skills and expertise meets the needs of an industry employer.

### Basic Principles

1. Make it Stand Out
  - Highlight keywords in the job description and weave them into your resume appropriately
  - Transferable skills such as volunteer work, internships, and projects add value to your resume and show you are a well-rounded individual
  - Descriptions should be concise, clear and focused on action-oriented accomplishment statements
  - Create a skills section highlighting technical as well as soft skills
  - Be sure the content in your resume is a truthful representation of your experiences
2. Style
  - With the exception of your summary, use bullet points throughout instead of paragraphs
  - Use section headers in a bold or larger font with adequate line spaces to distinguish between sections
  - Use consistent font styles and sizes throughout your resume
  - Allow for enough spacing between sections and bullets to be easy to scan and quickly read in 30 seconds or less
3. Content
  - Mailing address is not necessary. Email, phone and LinkedIn/GitHub is enough and should be at the top of the resume under your name
  - Do not include personal information such as SIN, marital status, religion, age, etc.
  - Match your job title, headers, and content to match the specific position you are applying for
  - A one-page resume is ideal. However, extending your resume to two pages based on aligned experience is also acceptable

## 2.2 BUILDING YOUR RESUME

### Page Heading

- Your full name should be at the top of the page, clear, bold and at least two font sizes larger than content text
- Phone number, email address (professional), city & province (optional), LinkedIn and website/github
- Full mailing address is not necessary

### Summary or Objective

- Not required but can provide a brief overview of skillset and qualifications
- A summary is used when there is experience in the job market: “Experienced Data Scientist with 5 years building...”
- An objective is useful if you have limited work experience “Motivated Data Scientist aiming to grow/expand...”
- You are a subject matter expert!

### Skills

- Technical skills listed first and relevant to the job you are applying for
- Soft skills can be added in the experience section
- Language and Lab skills

### Education

- Place education higher on your resume if you have less work experience
- Spell out the name of the institution rather than acronyms
- Include degree title and year received
- If space allows, can include GPA and coursework if relevant
- High School information is not needed

### Experience

- List experience in reverse chronological order
- Include job title, company name, city, country and beginning and end dates
- Use action verbs (present tense for current job, past tense for previous jobs)
- Use keywords found in the job description
- Place the most impactful results as the first bullet
- List the project, activity and results for each experience
- Soft skills can be added here “Provided excellent customer service...”
- Don’t forget to include transferable skills

### Projects

- List relevant projects as you would with the experience section above

### Publications

- Can highlight excellent research and writing skills
- Include the title of the publication or journal where it was published
- For online publications include the URL and digital identity

### Volunteering

- Shows a well-rounded individual and a supportive community member

### Additional Section Headings

- Academic Research
- Awards
- Certifications
- Internship Experience
- Memberships
- Professional Affiliations
- Professional Development
- Teaching Experience

## 2.3 RESUME AND MOCK INTERVIEW AI

AI-powered resume platforms optimize your resume based on the job description helping you get past ATS (Applicant Tracking Systems). Take a look at Jobscans 2023 ATS usage report [here](#).

**Jobscan** will rate your resume based on the job description, provide a hard and soft skills comparison chart, assess for spelling and grammar mistakes and provide feedback on the impact and results in each role.

**Vmock** provides personalized guidance to improve your resume. Paid subscription provides more detailed feedback.

**Big Interview** provides opportunity to hone your interview skills with interview prep, mock interviews, and resume builder tools.

## 2.4 ACTION VERBS

### Management Skills

Administered  
Analyzed  
Assigned  
Chaired  
Consolidated  
Contracted  
Coordinated  
Delegated  
Developed  
Directed  
Evaluated  
Organized  
Oversaw  
Planned  
Prioritized  
Produced  
Recommended  
Reorganized  
Reviewed  
Scheduled  
Supervised

### Communication Skills

Addressed  
Arbitrated  
Arranged  
Authored  
Co-authored  
Collaborated  
Corresponded  
Developed  
Directed  
Drafted  
Enlisted  
Formulated  
Influenced  
Interpreted  
Lectured  
Mediated  
Moderated  
Negotiated  
Promoted  
Publicized  
Reconciled  
Recruited  
Translated  
Wrote

### Creative & Research Skills

Clarified  
Collected  
Conceptualized  
Created  
Critiqued  
Customized  
Designed  
Developed  
Diagnosed  
Directed  
Established  
Evaluated  
Examined  
Extracted  
Identified  
Illustrated  
Integrated  
Inspected  
Inspired  
Performed  
Revised  
Streamlined  
Structured  
Summarized  
Surveyed  
systemized  
Tabulated  
Validated

### Technical Skills

Analyzed  
Applied  
Assembled  
Built  
Calculated  
Collected  
Computed  
Created  
Designed  
Developed  
Devised  
Engineered  
Extracted  
Fabricated  
Generated  
Implemented  
Improved  
Investigated  
Maintained  
Monitored  
Operated  
Optimized  
Processed  
Produced  
Programmed  
Remodeled  
Repaired  
Solved  
Strategized  
Tested

## 2.5 SKILLS TEMPLATE

Use this worksheet to identify transferable skills that can be used as accomplishment statements within your work experience that may match job descriptions.

### Action Verb

☐ Launched

### Context

☐ Gaming app

### End Result

☐ On iOS and Android

### Accomplishment Statement

Launched Unity-based (C#/C++) *New Gaming App* on iOS and Android

### Action Verb

☐ Developed

### Context

☐ To automate  
workflow

### End Result

☐ Conceptualizing ideas

### Accomplishment Statement

Developed applications in Python to automate workflow reducing operational loss by 20% for users.

### Job Description Keywords

Product Development

What Project?

☐

My Role?

☐

Impact?

Predictive Modeling

What Project?

☐

My Role?

☐

Impact?

☐

Mining and Analyzing Data

What Project?

☐

My Role?

☐

Impact?

☐

## 2.6 SAMPLE RESUMES

# JOY SMITH

Email: joy.smith.mds@gmail.com

Mobile No: +1(555)969-6000

### EDUCATION

Degree	Institute	Year
Master of Data Science in Computational Linguistics	University of British Columbia, Vancouver, British Columbia	2022-2023
Bachelor of Technology in Electronics and Communications Engineering	Technological University, Jaipur, India	2016-2020

### SKILLS

**Electronics:** Analog and Digital Networks, Switching and Logic Theory, Digital Signal and Image Processing

**Data Science/Machine Learning:** Data Manipulation, Descriptive Statistics and Probability, Algorithms and Data Structures, Data Visualization, Statistical Inference, Supervised Learning, Regression, Computational Parsing, Computational Semantics, Unsupervised Learning, Computational Morphology, Machine Translation, Sentiment Analysis, NLP for Low Resource Languages, Prompt Engineering

**Programming Languages:** C, C++, Python, Java, R, SQL, Unix, Ansible, Tableau, Git, HTML, Vue, CSS

**Soft Skills:** Excellent communication skills, analytical skills, problem solving and team skills

### WORK EXPERIENCE

<b>NLP Research Associate with UBC, UofT and Legal Online Ontario</b>	2023
<ul style="list-style-type: none"><li>Conducted comprehensive analysis of 44,228 Ontario Housing cases using NLP principles and developed a validated model to determine recurring factors that judges consider when ordering or delaying evictions.</li><li>Designed and built an API/dashboard to provide quasi-real-time outcomes by applying the model to any Residential Tenancy Board (RTB) decisions.</li><li>Collaborated with UBC Professors, Dr. Lucy Yong (All Law), Legal Online Ontario, and Future of Law Lab (UofT) to carry out the project.</li></ul>	
<b>Graduate Student Assistant, Geering Up STEM Outreach UBC</b>	2023
<ul style="list-style-type: none"><li>Collaborated with industry professionals and graduate students to develop age-appropriate curriculum materials for workshops, camps, and teacher professional development programs, fostering engaging and interactive learning experiences.</li><li>Presented curriculum to instructors, delivering comprehensive training sessions and effectively guiding them in the delivery of quantum computing workshops and camps.</li><li>Gathered and analyzed participant feedback, continuously improving curriculum content and instructional methods to enhance the educational experience.</li></ul>	

## PROJECTS AND RESEARCH EXPERIENCE

2023

### **SIGMORPHON Shared Task on Interlinear Glossing**

- Researched ways to automate the creation of interlinear glossed text, a key annotated data type in linguistic fieldwork and often the sole form of annotated data accessible for NLP work in low-resource languages.
- Developed a system that produces grammatical descriptions at the morpheme level based on input sentences adhering to the Leipzig glossing conventions.

### **Brainy: The Mental Health Screening Chatbot**

2023

- Fine-tuned an LLM using cutting edge prompt engineering techniques to administer psychological screening surveys in a conversational manner
- Developed a web app interface for the screening tests

### **The Bookdel Test: Examining Female Participation in Jane Austen Novels**

2023

- Adapted the Bechdel Test for classic literature using advanced corpus linguistics techniques using Jane Austen novels as a baseline
- Annotated a collection of Jane Austen's bibliography to assess gender representation
- Developed a searchable web app for the entire annotated corpora
- Featured on the 'Data Science in Action' tab in the UBC website

## VOLUNTEER EXPERIENCE

2023

### **Section Leader for Students Code, offered online by Stanford University**

- Facilitated weekly discussion sessions for 8-10 students as a volunteer section leader to supplement professors' lectures in the 6-week introductory Python programming course.
- Collaborated with a diverse group of 700 volunteer teachers and 9000 students from around the world to deliver a quality educational experience

## SIMON SNELL

British Columbia, Canada | **Phone:** +1 905-777 5511 | **Email:** ss@gmail.com | LinkedIn | GitHub

### SUMMARY

Results-oriented data science professional with 4+ years of experience, excelling in analytical and problem-solving skills. Proven track record of driving organizational growth through complex process improvement initiatives, yielding potential cost savings of up to \$6M. A collaborative team player with strong cross-functional communication abilities, adept at meeting tight deadlines and prioritizing tasks efficiently. Proactive, self-motivated, and passionate about leveraging data-driven insights to contribute to organizational success.

### TECHNICAL SKILLS

- **Machine Learning (ML)** – Regression, Clustering, Classification, Deep Learning, Natural Language Processing (NLP), Neural Networks
- **Programming Language and Packages** – Python, R, SQL Query, SAS, C, C++, NumPy, Pandas, Scikit-Learn, TensorFlow, Keras, PyTorch
- **Cloud** – AWS, Microsoft Azure, GCP
- **Visualization** – PowerBI, Dash, Tableau
- **Other** – Git Version Control, ETL, RESTful API, A/B testing, Heroku, Microsoft Office (PowerPoint, Excel), Visual Basic (VBA)

### RELEVANT EXPERIENCE

#### Data Scientist – Capstone Project, Healthwize, Toronto, Canada

April 2023 – June 2020

- Conducted Natural Language Processing on the comments section in downtime dataset for classification into noun and verb phrases
- Implemented Logistic Regression to predict event failure and action performed reducing the misclassification rate to 10%
- Applied K-means and DBSCAN clustering using TFIDF vectorizer to group similar comments and label clusters using topic modelling

#### Data Scientist - Corporate Head Office, Tolaram, Lagos, Nigeria

January 2021 – August 2022

- Designed and implemented a real-time truck tracking system to extract, load and transform data from 8 factory locations with a significant workload reduction of 25 hours per week
- Regulated and managed inventories for all 8 factories by forecasting inventory requirements using regression analysis and visualizations in PowerBI dashboard, ensuring 5% reduction in working capital
- Analyzed market demands and ingredient availability using advanced Excel to prepare weekly production schedules for all factories, consistently exceeding production targets by 1 - 5% each month and maintaining a balanced supply demand for business processes
- Showcased exceptional negotiation strategy and effective verbal communication skills in securing competitive quotations from global suppliers for spare parts procurement, supporting informed decision-making across four noodle factories

#### Operations Data Analyst – Noodle Business, Tolaram, Ota, Nigeria

March 2020 – January 2021

- Collected scrap data and applied Linear Regression models to identify major scrap generation areas with annual savings of \$150k
- Addressed the long-standing issue of high slitter comb usage in the noodle manufacturing machine by using paired t-tests and Design of Experiments (DOE) for proper slitter settings, reducing comb usage per month by 5X along with annual savings of \$110k
- Performed ANOVA tests to identify optimal fryer parameters for achieving high moisture-content noodle products, accelerating the shelf-life study by testing dehumidifiers and ovens at different parameters, demonstrating potential annual cost savings of \$5M



- Prepared monthly factory performance presentations using Tableau and PowerPoint with meticulous attention to detail, facilitating effective communication with business heads and stakeholders for insightful reviews.

#### **Six Sigma Data Analyst - Packaging Business, Tolaram, Lekki, Nigeria. April 2019 – March 2020**

- Successfully implemented a scalable new measurement system for data collection of ink usage, leading to annual savings of \$100k
- Used SMED (Single-Minute Exchange of Die) methodology, reducing job changeover time by 45 mins and \$75k in annual savings
- Captured the downtime data of the printing machine using Visual Basic forms and conducted statistical root cause analysis using R software

### **ACADEMIC PROJECTS**

#### **Credit Card Anomaly Detection March 2023 – April 2023**

- Compared the performance of ML algorithms including Artificial Neural Networks (ANN), Multi-Layer Perceptron (MLP), and Long Short-Term Memory (LSTM) using TensorFlow, and proposed a hyper-tuned ANN that achieved the highest F1 score, precision, and recall.

#### **RESTful API for Weather Forecasting January 2023 – February 2023**

- Developed a comprehensive solution by creating a wrapper API using the 7timer.info API for location-based weather forecasts, addressing limitations such as inputting city names instead of geo-coordinates and improving interpretation and visualization. This involved web scraping from the HTML of the webpage, data wrangling of JSON files, and implementation of continuous testing using GitHub Actions.

### **EDUCATION**

#### **Master of Data Science September 2022 – June 2023**

University of British Columbia (UBC), British Columbia, Canada – 3.9 CGPA (4 Point Scale)

*Coursework:* Web and Cloud Computing, Bayesian Inference, Predictive Modelling, Data-visualization, Machine Learning

#### **Bachelor of Technology in Electrical and Electronics Engineering July 2015 – May 2019**

Vellore Institute of Technology, Vellore, Tamil Nadu, India – 9.01 CGPA (10 Point Scale)

### **CERTIFICATIONS**

Design for Six Sigma Black Belt, **Benchmark Six Sigma December 2020**

Lean Six Sigma Black Belt, **Benchmark Six Sigma August 2019**

# Kenny Gao

**Email:** kg999@gmail.com **Mobile:** 677-222-1995 **Address:** Kelowna, BC

## SKILLS

- Programming Languages: Python, R, SQL
- Machine Learning: Neural Network, Random Forest, SVM, LASSO, KNN, PCA, Clustering, NLP and etc.
- Statistics: Statistical inference, Hypothesis testing, Spatiotemporal modelling, Spline, Smoothing, GLM/GAM
- Data Visualization: Tableau, Altair, Dash, Plotly in Python, ggplot2 in R
- Software Tools: MS Office Suite (Advanced level in Excel, Word, PowerPoint, Outlook, Visio, and Access), GitHub, Google Big Query, Google Colab, AWS, Azure and etc.

## EDUCATION

**Master of Data Science | GPA: 92.1/100 (2022 - 2023)**

*University of British Columbia, Kelowna, BC, Canada*

- **Key Courses:** Algorithms and Data Structures, Databases and Data Retrieval, Data Wrangling, Predictive Modelling, Web and Cloud Computing, Supervised/Unsupervised Learning, Bayesian Inference, Optimization

**Bachelor of Engineering, Civil Engineering | GPA: 87.7/100 (2018 - 2022)**

*China University of Mining & Technology, Beijing, China*

- **Awards:** Student Excellence Scholarships (top 10%) for four consecutive years

## PROFESSIONAL EXPERIENCE

**Data Scientist Capstone Intern (Apr 2023 – May 2023)**

*JustPractice Technologies Inc, Kelowna, BC, Canada*

- Perform data cleaning, and natural language processing (NLP) techniques such as tokenization, stemming, POS tagging, and embedding in SQL and Python on unstructured data from 300,000 cases of medical free-text notes
- Build a pipeline to extract corresponding values of key words and discover their patterns to aid healthcare professionals to identify symptoms and diagnoses more efficiently

**Data Analyst Intern, Office of Data Centralization (Jul 2021 - Aug 2021)**

*Statistics Bureau, Chengde, Hebei, China*

- Invoked API to extract economic data from source software to Excel for data wrangling and massaging
- Performed trend and regression analysis for economic planning. Applied relevant mathematical model on existing data to predict future scenarios
- Communicated with the non-technical faculty team and wrote reports with tables and charts for explanation

## PROJECT EXPERIENCE

**Deep AutoEncoder based Anomaly Detection in Credit card Frauds (Python) (Mar 2023 - Apr 2023)**

- Processed imbalanced data with oversampling techniques, applied feature selection methods, and implemented AutoEncoder on TensorFlow framework; tuned hyper-parameters and model structure achieving F1-score of 0.91

**Regression Analysis for Prediction in Salaries of Data Science Jobs (R) (Feb 2023 - Mar 2023)**

- Implemented Exploratory Data Analysis on dataset and hypothesis testing on research questions; developed regression models based on Random Forest, LASSO and Kernel Regression; performed model diagnostics and evaluation, and achieved an optimized prediction model with small Mean Squared Error

**US Homicide Cases Interactive Visualization App (Python) (Feb 2023 - Mar 2023)**

- Built an interactive dashboard using Dash in Python to visualize analysis of homicide cases in US, including an Interactive Map linked to line and column charts, Rose Graph and Sankey Plot

**Prediction in Underground Anchor Support Effect based on SVM (R) (Mar 2022 - Jun 2022)**

# Marty Nova

## Data Scientist

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[linkedin.com/in/martynovai/](https://linkedin.com/in/martynovai/)

### Work Experience

#### Machine Learning Consultant (UBC Capstone Project) | Teejlab Inc.

Apr 2019 – Jun 2019 | Vancouver, BC

Research-driven start-up with a SaaS application to discover APIs, and ensure legal compliance and security for academia and industry

- Improved classification of technology services agreement clauses by ensembling dependency parsing and machine learning models improving accuracy from 28% to 65%
- Implemented latest NLP research papers on legal text classification including preprocessing, feature engineering, and predictive modeling
- Integrated solution into existing enterprise SaaS application by developing an end-to-end Python pipeline
- Facilitated collaboration through implementing SCRUM project management and GitFlow version control

#### Data & Analytics Consultant | KPMG US

Jan 2013 – Jun 2018 | San Francisco, CA | Los Angeles, CA | Denver, CO

- Led a team of offshore ETL developer and on-site BI analyst in the finance and engineering analytics workstream of an Oracle BI implementation project at a public utilities company
- Gathered requirements for business intelligence dashboards at six industry-leading Fortune 500 companies
- Architected technical specifications to integrate enterprise analytics tools into existing IT infrastructure
- Conducted testing and data validation on ETL target tables from source database using SQL queries
- Modelled, built and presented POCs in Data Analytics tools including Tableau, MicroStrategy, and Qlikview for a leading global investment bank and a healthcare provider servicing over 4.4 million members across US
- Awarded KPMG Encore! Bravo Awards for outstanding performance on 2 key client engagements

### Technical Skills

- Advanced Modeling: Deep Learning (CNNs RNNs LSTMs & Transfer Learning), SVMs, Random Forests,  $k$ -NNs, Topic Modelling (LDA), Clustering ( $k$ -Means, DBSCAN), Dimensionality Reduction (PCA & t-SNE)
- Python: Keras with TensorFlow, nltk, Scikit Learn, Gensim, SciPy, NumPy, Pandas, Matplotlib, Seaborn
- R: Caret, Tidyverse, Broom, Interactive web apps with Shiny
- Java: Object-Oriented Programming, Android App Dev
- Databases: Relational database design, MySQL, Oracle DB, Microsoft SQL

### Education

#### Master of Data Science

University of British Columbia

Aug '18 – Jun '19 | Vancouver, BC

Professional Master's program with courses in Computer Science and Statistics

- Supervised and Unsupervised Machine Learning
- Feature & Model Selection
- Regression
- Causal Inference
- Clustering and Dimensionality Reduction
- Spatial and Temporal Modelling
- Relational and NoSQL Databases
- Data Visualization
- Privacy, Ethics and Security

#### Bachelor of Science

##### Information Systems

Brigham Young University

Aug '09 – Dec '12 | Provo, Utah

- Project Management
- Systems Analysis and Design
- Enterprise Application Development

### Volunteering

- Websites developed using WordPress CMS for 4 U.S. Non-Profit Organizations
- Volunteered for Hygiene Supplies and Food Distribution for homeless in Skid Row, Los Angeles, CA
- UNICEF Polio Immunization Campaign field trainee

## 2.7 COVER LETTERS

Not all companies will ask for a cover letter when advertising a job opening. However, it is good practice to submit one as it is not only a professional courtesy, it showcases your writing skills. Don't use a template and tailor your cover letter for each position you apply for. Always check for spelling and grammar! Keep the letter positive and confident.

1

### Address

- ☐ Begin with your name, city, province, telephone number and email
- ☐ The date you are writing the cover letter
- ☐ Address the letter to the hiring manager if possible, their job title and the company name and address
- ☐ The greeting should be specific, avoiding gender pronouns unless known. The job description may reveal who the role reports to (e.g. V.P. of Operations) look up the name via LinkedIn or Google. If all else fails the greeting can be: Dear Hiring Team

2

### First Paragraph

- ☐ State your intention – the position you are applying for
- ☐ Add a personal element – why this position? Why this company?
- ☐ Evoke a positive emotional response. Captivate them.
- ☐ Employers look for people who are a cultural fit and excited about what they're doing
- ☐ Note if someone referred you

3

### Middle Paragraphs

- ☐ Match your skills and abilities to the skills and abilities listed on the job description
- ☐ Highlight relevant experience and education
- ☐ Identify a problem the industry is facing (look at job description) and offer a solution (your expertise)
- ☐ Provide direct evidence that you have what they need
- ☐ Connect the dots between what they need and what you can offer
- ☐ Include technical and soft skills

4

### Closing

- ☐ Be sure to have a strong close – a call to action-an interview!
- ☐ Companies are looking for a candidate who is authentic, specific and informed. Be sure your cover letter embodies this.
- ☐ Close with "Sincerely", your signature and typed name below

## 2.8 SAMPLE COVER LETTERS

**LISA JONES**

Vancouver, BC | 777-222-9595 | lisajonesdata@gmail.com | linkedin.com/in

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May 20, 2023

John Doe  
PHSA  
1333 W. Broadway  
Vancouver, BC

**RE: Data Analyst**

Dear Mr Doe,

My enthusiasm for analytics, data, and healthcare makes me an ideal candidate for PHSA's Data Analyst position, as advertised on the Vancouver Health website. As a graduate of University of British Columbia's Master of Data Science program, and as a previous graduate of the Health Information Science and Computer Science Combined Major program from the University of Vancouver, I have the communication and technical skills you are seeking. Additionally, my combination of education, data analysis experience, and professionalism will allow me to excel.

Through my work experience and educational pursuits, I have proficient with many different technologies, including SQL Server, Python, and R. During my co-op work terms I extracted, analyzed, and summarized data results in various types of technical documents and reports. In my role at City Health, I used SQL, XML and XSLT to migrate data from/to various EMR systems including Wolf and Med Access. I also led or participated in various development projects. Some were to improve internal tools while others improved the quality of clinical data being migrated.

In addition to my experience, I bring a positive attitude, impressive attention to detail, solid work ethic, energy, and enthusiasm to all endeavours. I look forward to discussing with you how these attributes will contribute to City Health.

Thank you for considering my application. I am eager to learn more about the Data Analyst position and look forward to discussing my candidacy with you. I can be reached at your convenience at lisajonesdata@gmail.com.

Sincerely,

*Lisa Jones*

Lisa Jones

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**Sunny Rainer-Schulz**  
sunny.r.schulz2018@gmail.com  
(604) 222- 2222

May 28<sup>th</sup>, 2018

Amira Singh  
Director, Research and Institutional Sales  
STEMCELL Technologies  
750 W Pender St  
Vancouver, BC V6C 1G8

**RE: Scientific Sales Representative**

Dear Amira Singh:

Thank you for taking the time to review my letter of application. A position as a scientific sales representative at STEMCELL Technologies would allow me to utilize my knowledge of the complexities of immunology and scientific research, and my goal-oriented sales and business development focus to drive bottom line results in your organization.

In order to successfully complete my doctoral research in the Department of Immunology at the University of British Columbia, I've had to develop the ability to conduct rigorous scientific research, but also to multitask, self-motivate, and trouble-shoot. One of my proudest accomplishments was re-negotiating a contract with one of the vendors that supplied key products to our laboratory; no one else had previously identified that by streamlining the frequency of deliveries, we could achieve significant cost reduction, and this optimization allowed for our funding to be used more effectively.

As the President of the departmental Student Society at the University of British Columbia, I engineered and revamped the annual Immunology Research Conference and implemented a marketing campaign to increase awareness and interests of the conference by communicating and liaising with multiple stakeholders including faculty members, staff, student leaders and external sponsors. My strong interpersonal skills and diplomatic approach in carrying out relevant tasks improved the registration and attendance record by more than 150% in the past two years, respectively. I built strategic and timely sales and relationship pipelines to manage and guide my business development efforts which involved cold-calling, presenting, negotiating and maintaining relationships.

I am excited for the possibility to join STEMCELL Technologies and facilitate the development of products that can advance scientific progress. I look forward to further discussing my experience and qualifications at a time that is convenient to you. Thank you for taking the time to review my application.

Sincerely,

Sunny R. Schulz

## 2.9 OTHER CAREER WRITING

### Thank You – Follow-Up Email

Dear Mr. Smith,

It was a pleasure speaking with you and Mr. Mansfield yesterday, regarding job opportunities at Supa Systems. I am very interested in the work you are doing and am extremely impressed with the advanced applications being used in your company.

As I mentioned during our conversation, my past two summer positions were related to the development and design of software programs for industrial computer vision experiments. With my skills and interest in software design, I believe I could be of value to Supa Systems. Thank you for your time. The interview was very informative. Please let me know if you need any more information about my background. I look forward to hearing from you.

Sincerely,

Your Name

Your Contact Information  
(phone, address, email)

Dear Ms Bledsoe,

I appreciate you taking the time to meet with me today. I enjoyed hearing more about (company name) and the Data Scientist role. I look forward to continuing the interview process.

Thank you,

Jane Hutchinson

### Declining a Job Offer

Positive and Polite! Begin with a statement thanking the company for the offer. Give an appropriate reason for the decline (other offer, relocation, etc).  
Complete by thanking the company for the opportunity.

# The Job Search

## 3.1 NETWORKING

It is reported that 80% of jobs are never advertised. Networking gives you the opportunity to access this hidden job market while building relationships and making connections. The network connections that you cultivate will provide you with advice, information and even more connections.

### Informational Interviews

- Identify other professionals through professional associations, family, friends, professors
- Request a meeting over coffee, zoom, or on the phone
- Create targeted questions based on research you have done on the organization
- Be courteous but casual, you are not asking for a job!
- Be mindful and respectful of the pre-arranged time frame.
- Send a follow-up email or message thanking them for their time
- Keep a record of people you have met and interviewed-they are now part of your professional network

### Questions for the Informational Interview

- What does a typical day/week look like?
- What aspects of your job do you enjoy the most/least?
- How did your career path progress into this field?
- What are the biggest challenges you have faced in this job?
- What do you wish you had known before entering this career path?
- Are there any professional associations you suggest that I join or conferences that I should attend?
- Do you have any recommendations on my job search strategy?
- Is there anyone else in this field with whom you would suggest I meet with?



### **LinkedIn**

- Online professional presence
- You can add content from your resume such as education, work experience and references
- Make professional connections in your field and get access to job listings
- Create an impactful profile heading
- Use a professional headshot
- List your education at the top of your profile
- Create a professional summary including qualifications, experience and goals
- List your skills in order of importance
- Build your network!
- Recruiters may find you through keywords

### **Social Media**

- Recruiters may view social media channels in their recruiting efforts
- Review your online presence, do you appear professional?
- Remove any posts that may be viewed negatively
- Find and follow the companies you are interested in on their social media platforms
- Stay relatively active, some companies may post job opportunities

# Interviewing and the Job Offer

## 4.1 INTERVIEWING TIPS

### 1. Research the Company

- Read through the company website thoroughly
- Google any news or press releases
- Connect with employees via LinkedIn
- Set up information interviews with employees
- Find out what you can about the person interviewing you
- Find and follow the company's social media accounts

### 2. Prepare with a Mock Interview

- Practice your soft skills with a friend or co-worker
- Practice verbalizing your skills and experience with clear communication and enthusiasm

### 3. Make a Good First Impression

- Arrive early for an in-person interview
- Dress appropriately by researching the culture of the company. If most people wear jeans
- Make eye contact with everyone in the room, not just the person questions

### 4. Be Clear and Specific

- Keep your responses focused and relevant
- You can follow-up a response with a question of your own (relevant to the question asked)
- Maintain conversational dialogue and create connection

### 5. Express Appreciation

- Thank the interviewer(s) and inquire as to next steps
- Offer a firm handshake
- Follow-up with a thank you email or note

## 4.2 TYPES OF INTERVIEWS

### Recruiter Interviews

- Recruiters are generally looking for 3 things: skills and background match, clear and concise communication and enthusiasm and energy
- Highlight your professional experience and career objectives
- Focus also on technical skills, what type of role and company culture
- Be receptive to the recruiters advice

### Behavioral Interviews

- Provide basic information about future success based on past behaviors
- Questions may be on any of the following: time management, teamwork, communication skills, multitasking, leadership, decision making, problem solving, adaptability, goal setting, achievements, creativity and conflict management
- Use the STAR method to answer: Situation you were in, Task you needed to accomplish, Action you took, Results of your experience

### Technical Interviews

- Practice using sample technical questions & writing code on Google Docs w/o IDE support
- Review the job description for the required technical skills
- Communicate and ask clarifying questions if necessary
- Depending on the company, there could be 5-6 rounds of technical challenges
- 3 types of coding challenges: Algorithm exercise, Take home coding challenge, Live coding session \*focus on coding first\*
- Understand different data structures & algorithms
- [Sample Coding Quiz](#)

### Video and Phone Interviews

- Set up your video conference system in advance to check for sound and microphone quality
- Be aware of your background and other distractions
- Make sure your phone is charged and in range
- Have the job description and notes readily available

### On-Site Interviews

- Get familiar with the location ahead of time and plan travel time to arrive early
- Be enthusiastic!
- Practice appropriate etiquette, thank your interviewers for their time

## 4.3 SAMPLE QUESTIONS TO ASK IN AN INTERVIEW

- What challenges do you think the business will face over the next 3-5 years?
  - What skills do you see as most important in order to be successful in this position?
  - What kind of assignments might I expect to be working on in the first 6 months?
  - Where does this role fit in with the growth strategy of the company?
- 
- What additional training might be necessary for this position?
  - Are there training programs available to learn and grow professionally?
  - What is the growth potential in this position?
  - What are your projections for this department/position for the next year?
- 
- What does a typical day/week look like?
  - What is the onboarding process?
  - When do you expect to make a hiring decision for this position?
  - What is the culture like?
  - What do you enjoy most about your job/working here?

## 4.4 NEGOTIATION SKILLS

<b>Respond</b>	Respond politely even if the offer is below expectations. Agree on a date for final answer.
<b>Research</b>	Research current salary ranges. Consider negotiating non-salary items such as signing bonus, relocation expenses, and start date. Benefits and vacation time is usually non-negotiable.
<b>Strategy</b>	Time your negotiations with other potential offers. Consider all factors involved with each offer. Identify who to negotiate with, reassure them of your interest and keep it respectful.
<b>Decision</b>	Get all terms agreed upon in writing prior to accepting. Provide your response as soon as possible, whether accepting or declining. Always be polite regardless of your response. If declining, begin with a positive statement thanking the company for their offer. Provide an appropriate reason for the decline.

# Mastering Soft Skills

## 5.1 TIME MANAGEMENT

- For effective time management skills it is important to understand your tendencies
- Are you focus oriented or chaos oriented? Or somewhere in the middle (most people)
- Chaos oriented people are naturally disorganized, usually show up late and miss deadlines
- Focus oriented people are naturally organized, show up early, and are very disciplined
- Multitasking is the biggest obstacle to time management in that tasks end up taking more time to complete as focus is constantly switching from one to the other
- Practice positive procrastination – put it in your calendar
- Scheduling time on projects, meetings, when to check emails will create good time management skills
- Identify and protect your Einstein Window: when you are at your mental peak, where work feels fun, you get things done. This generally lasts between 2-4 hours each day.

## 5.2 COLLABORATION

- Team collaboration produces improved results, better efficiency and higher morale
- Create specific steps at the onset of a project:
  - set boundaries
  - define expectations
  - identify potential areas of disagreement
  - clarify goals and purpose
  - clarify constraints, expectations and processes
- Think about team availability, diversity and complementary work styles
- Develop ground rules (start and end meetings on time, etc.)

## 5.3 COMMUNICATION

- Strong communication skills are the foundation for success in all areas of life
- Manage perceptions: consider the other persons perspective
- Intention does not always equal impact
- People want to feel respected and treated fairly
- Collaborate rather than dictate

- Consider your body language and the tone of your voice
- Listen:
  - a skill to make that will make you an amazing communicator
  - use active listening – ears, eye contact, body language (are your arms crossed in front of you?)
  - notice if you frequently interrupt others, or talk over them
- Practice communication skills in social settings:
  - find a connection
  - ask open-ended questions-be curious!
  - practice listening
  - stay engaged-don't get distracted
- In meetings:
  - allow others to have a voice
  - Share the meeting agenda ahead of time so others can prepare
  - be polite and respectful

## 5.4 BUSINESS ETHICS

- Your behaviours at work are based on your company's ethical practices, as well as country and cultural norms
- Honest, open communication of information is generally expected
- Understanding of confidential information that can or should not be shared and with whom
- Understanding of company policies, regulations and roles
- Understanding of legal restrictions, non-disclosure agreements and non-compete clauses
- Act in alignment with business values
- Work collaboratively whenever possible
- Use motivation rather than coercion
- Invite an open-door policy
- Adopt a welcoming attitude to all co-workers-get to know them by name!
- Knowledge of possessing the authority and information to make decisions or to defer to superiors
- Be aware of misusing company time: long lunches, early departures, late arrivals, secretive behaviours, frequently leaving the office for personal reasons
- Don't engage in workplace bullying, gossiping, complaining, boasting, theft etc.

# Resources for International Students

## 6.1 INTERNATIONAL STUDENT ADVISING

International student advisors are available in Kelowna and Vancouver Monday through Friday to book meetings and support you on your academic and post academic journey.

If you have questions about Immigration documents, health insurance, working in Canada, transitional support, intercultural programming and events and community resources, contact:

### Okanagan

[Ubco.global@ubc.ca](mailto:Ubco.global@ubc.ca)

UNC 227

### Vancouver

[International Student Advising Webform \(UBC-Vancouver\) \(qualtrics.com\)](https://qualtrics.com)

## International Student Guide

### Okanagan

[International Student Guide \(ubc.ca\)](https://ubc.ca)

### Vancouver

[International Student Guide | Student Services \(ubc.ca\)](https://ubc.ca)

## Tutorials on Immigration, Study Permits and Health Insurance

[Tutorials | Student Services \(ubc.ca\)](https://ubc.ca)

## Finances and Taxes in Canada

[Paying taxes in Canada \(ubc.ca\)](https://ubc.ca)

## Post Graduate Work Permit

[Post-graduation work permit \(ubc.ca\)](https://ubc.ca)