Tiffany Chu

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EDUCATION

University of British Columbia   2019 - Dec 2023
M.Sc. in Data Science
- Scholarship recipient, 93% average

University of British Columbia   2019 - Dec 2023
B.A. in Cognitive Systems, minor in Commerce
- Entrepreneurship@UBC accelerator venture program

BrainStation   2024 - Apr 2024
Accelerated Data Science Diploma

EXPERIENCE

Research Analyst   Feb 2025 - Present
Lodestar Media Inc
- Developed scalable ETL pipelines using Python notebooks, Power Query, and VBA, improving speed and accuracy of weekly BIV lists
- Built a new PostgreSQL database in pgAdmin to merge and transform multiple raw tables to derive key insights from 30,000+ company records, 20,000+ contacts, and historical executive data

Technical Research Assistant   Sept 2024 - Jan 2025
Rural eMentoring BC
- Managing the Natural Language Processing Tool website for automated data analysis and deriving insights from user relationships

Research Assistant Volunteer   2023 - Dec 2024
Oculomotor Lab - Department of Visual Sciences, UBC
- Conducted experiments using the EyeLink eye tracker with participants, analyzed audio files in Python notebooks, created graphs and experiment design diagrams, and synthesized audio features into .csv spreadsheets
- Documented and synthesized research for literature review and project ideation.

Data Science (NLP) Research Intern   May - Aug 2024
UBC Data Science Institute
- Managed and manipulated large datasets with 10000+ user entries, leveraging machine learning models to uncover insights, created reports and visualizations to communicate complex data insights into practical solutions
- Developed an app with text preprocessing/ cleaning and NLP models including question-answering models, summarization, mood detection, and recommender systems
- Conducted exploratory data analysis and applied time series analysis (using Prophet) to uncover and predict trends

Marketing Analyst Intern   Sept - Dec 2022
Pawsome Concierge
- Conducted competitor and market analyses to identify partner opportunities and growth initiatives
- Designed a comprehensive client acquisition proposal outlining the pricing terms, value proposition, and timeline
- Enhanced marketing initiatives by translating market data, delivering insightful reports with statistics and visualizations

Byte Camp   May - Aug 2020
Computer Programming Instructor

- ○ Successfully taught computer applications such as Blender, OBS, Inkscape, and Godot (in Python) for weekly groups of 30 high school students alongside partner instructor

Volunteering and Mentoring Experience

Patient Partner and Research Assistant Jan 2023 - Present
UBC School of Nursing
- ○ Supervisor: Dr. A. Fuchsia Howard
- ○ Research Project - Analyzing transcripts from intensive care unit (ICU) survivors using computational methods to identify the challenges people experience after hospitalization that might contribute to an unplanned readmission
- ○ Aided in the knowledge translation of a longitudinal Photovoice Study of ICU Survivors. Successful CIHR grant funding. Research paper and virtual exhibition in progress.

Founder and President 2020 - 2021
Unload Canada (UBC Chapter)
- ○ Responsible for planning conferences with professors, and collaborated with other organizations (Kaleidoscope, Music for Mental Health, QPR training)

Volunteer Coding Instructor 2019 - 2020
The C.O.D.E Initiative
- ○ Successfully trained a group of students in coding the Sphero SPRK+ robot by guiding students to think programmatically when solving errors in their code

Mentor 2020 - 2021
LEAP Canada
- ○ A role model to incoming first-year students, collaborated with industry professionals and peers to deliver a presentation to an audience of over 200 students

Projects

Latent Content Analysis of ICU Photovoice Transcripts
- ○ Created a pipeline using Python to analyze qualitative data, including CSV and Word-to-JSON converters, text preprocessing, embeddings/vectorization, and performance metrics (coherence, perplexity).
- ○ Used topic modeling and other natural language processing techniques to identify themes in ICU patient transcripts and photos.

Anomaly Detection of Congressional Investments
- ○ Identified congressional insider trading using data from the Senate Stock Watcher API.
- ○ Implemented unsupervised ML ensemble methods (autoencoders and hierarchical clustering) to flag suspicious transactions and trading patterns.

Relevant Skills

Languages:	English (native), Cantonese (conversational)
Programming:	LaTeX, Python, C++, Racket, R, Git Bash, HTML/CSS/Javascript, SQL, Matlab
Technologies:	AWS, Docker containers, Git, Bash CLI, big data frameworks (Hadoop and Spark), Tableau, Streamlit
Software:	SPSS, Jamovi, Excel, Netlogo, Microsoft Office Suite, GSuite, InkScape, Camtasia
Libraries:	Pandas, NumPy, Scikit-Learn, matplotlib, seaborn, pytorch, NLTK, Scipy, ggplot2, dplyr, plotly, huggingface
Certifications:	Red Cross Emergency First Aid AED+CPR certified