

# 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 on 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:	L <sup>A</sup> T <sub>E</sub> X, 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