

Tommy M. Xu

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EDUCATION

University of British Columbia

Vancouver, BC

Dual Degree: Bachelors of Science in Computer Science & Statistics + Master's of Management

2019 – 2024

EXPERIENCE

Machine Learning Software Engineering Intern

Borealis AI

Sept 2023 – Present

- Co-developing distributed data pipeline and job management framework using Python, Spark and Kubernetes.
- Improving engineering tools and pipelines for core machine learning research teams within RBC.
- Improved robustness and efficiency of automated big-data operations like storage and retrieval using DuckDB.

UBC Undergraduate & Graduate Teaching Assistant (TA)

University of British Columbia (UBC), Vancouver

Jan 2022 – Present

- TA for UBC's CPSC 320, teaching problem-solving with greedy algorithms, dynamic programming, and graphs.
- Past TA for the UBC Master's of Data Science program courses "DSCI 551: Statistics & Probability", "DSCI 552: Statistical Inference", and "DSCI 561: Regression 1", specializing in statistical analysis in R and Python.

Machine Learning Engineer – Team Lead

Minivillage

July 2023 – Sept 2023

- Led and managed engineering team, responsible for planning, execution, and delivery of novel recommendation system for the Minivillage social network platform, built on Python and Amazon Web Services.
- Explored and applied various ML techniques like deep autoencoder in Keras and Tensorflow and topic modeling.
- Collaborated with the Product and Business team, aligning engineering work with the product roadmap.
- Strengthened the system architecture and implemented automated deployments to AWS Lambda with AWS SAM.

Full Stack Software Engineer Intern

Dyne App

May 2023 – July 2023

- Developed full-stack on Dyne's web application built on MongoDB, Node.js, Express, and React.js.
- Built POC feature for a new marketing tool that uses GPT to generate customized social media ads.

Software Engineering Intern, Platform

Calabrio Inc.

Jan 2023 – May 2023

- Developed Calabrio's cloud-first SaaS BI-tool in AWS and Java EE, serving hundreds of businesses daily.
- Jointly spearheaded the upgrade of the Java application server Wildfly, improving security for the cloud platform.

Undergraduate ML Research Assistant

Artificial Intelligence in Medicine Lab at UBC

Jan 2023 – May 2023

- Assisting deep learning algorithm development for cancer classification using PyTorch, Tensorflow, and singularity.
- Weekly deep-dive into state-of-the-art machine learning research, with a focus on deep learning for histopathology.

LEADERSHIP

VP, External

UBC Computer Science Student Society

May 2022 - July 2023

- Elected by 1600+ UBC CS students to lead outreach to external groups and bring PD resources to campus.
- Led 20+ students to host UBC's largest in-person tech career fair in three years, inviting 30 tech companies.
- Pioneered the UBC Tech Consulting Program, matching top CS students with clubs to build technical solutions.

TECHNICAL SKILLS

Languages: Python, Java/Java EE, C++, SQL, JavaScript/Typescript, PHP, HTML/CSS, R, MATLAB

Frameworks: React, Node.js, Express, Flask, Jenkins, Apache Spark, Tensorflow, Keras, PyTorch, Pytest, JUnit

Technologies: Git, Docker, Kubernetes/OCP, AWS (Lambda, CloudFormation, S3, ECR), Azure Cloud, MongoDB