Arman Moztarzadeh

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EDUCATION

University of British Columbia

Bachelor of Science in Mathematics

Sept. 2020 – April 2026

Vancouver, Canada

SKILLS & LANGUAGES

Languages: Python, JavaScript, TypeScript, Java, SQL, NoSQL, R

Frameworks/Libraries: React, Node, pandas, NumPy, Express, scikit-learn, JUnit

Technologies: Git, AWS, Docker, Azure, GCP, MongoDB

PROFESSIONAL EXPERIENCE

Software Engineer Intern

 $June\ 2024-Sept\ 2024$

Amazon

Vancouver, British Columbia

- Developed a full-stack workflow for credit card multi-factor authentication (MFA) for UK retail checkout using **React**, enhancing payment security by 20%.
- Implemented a 'checkout' use case in TypeScript for the team's testing sandbox, utilizing AWS SAM and AWS Lambda to test the workflow with various inputs.
- Introduced two APIs to handle payment authorization, enabling seamless experimentation with minimal disruption to the existing codebase.

Software Engineer Intern

Jan 2024 – April 2024

Government of Canada

Ottawa, Ontario

- Led the development of 7 features using Python and MongoDB, improving application functionality and supporting a major infrastructure upgrade.
- Utilized MongoDB to query through the production database, contributing to the deprecation of **9** legacy codebase elements and modernizing the system for improved maintainability.
- Created detailed Confluence documentation related to development, facilitating future employee onboarding.

Undergraduate Teaching Assistant

Sept 2023 – April 2024

UBC Department of Computer Science

Vancouver, British Columbia

- Developed a course assignment to compare the performance of **AWS EMR** single-node and multi-node clusters for big data processing tasks, providing insights into cluster optimization strategies.
- Provided feedback in editing and reviewing course assignments related to AWS, Azure, and Docker.
- Assisted 100+ computer science and data science students to help them understand cloud concepts.

Software Engineer in Test Co-op

May 2023 – Dec. 2023

Optum

Richmond, British Columbia

- Collaborated closely with the testing team to develop and execute advanced automated test scripts using C# and Selenium, leading to a 10% performance enhancement as measured by LoadRunner benchmarks.
- Developed 8 Python scripts utilizing pandas and numpy to automate critical tasks including extracting archive log data and generating CSV reports.

Software Engineering Intern

Sept. 2022 - Dec. 2022

Porton Health

Vancouver, British Columbia

- Enhanced existing applications by introducing new functionalities and features using JavaScript, and Node.js.
- Tested and debugged over **35** components using **MongoDB** and documented workflow.

TECHNICAL PROJECTS

Portfolio Diversification Model 🗹 | Python, Angular, Tensorflow

Oct 2023 - Dec 2023

- Employed the Upper Confidence Bound (UCB) algorithm using **Python** to evaluate stock performance and generate investment recommendations tailored to user-defined risk tolerance and historical performance.
- Helped with the development of the **Keras Long Short-Term Memory (LSTM)** model for time series forecasting, a critical feature to enhance the project's predictive capabilities.

BC Cancer Ticket Management System 🗹 | React.js, Express.js, MYSQL

Oct 2022 – April 2023

- Developed a laboratory management system as part of UBC Launch Pad and actively met with stakeholders.
- Developed routes and models to load questions into SQL database.