Patrick Chan

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Work Experience

Amazon Web Services (AWS)   **July 2022 – Present**
Software Development Engineer I   *Vancouver, BC*
- Simple Queue Service (SQS) Workload Management & Automation Team
- Full stack develgtopment using Kotlin, Java, Spring, and JUnit

Amazon Web Services (AWS)   **May 2021 – Aug 2021**
Software Development Engineer I Intern   *Vancouver, BC*
- Full stack development on the Simple Queue Service (SQS) Workload Management Team using Kotlin, Java, Spring, and JUnit
- Streamlined on-call operator workflows for identifying, diagnosing, and resolving issues
- Improved internal operational dashboard visibility of critical backend metrics and alarm states

Thrive Health   **Sep 2020 – Apr 2021**
Software Developer Intern   *Vancouver, BC*
- Full stack development using Node.js, TypeScript, React, Redux, PostgreSQL, HTML5, CSS
- Developed and maintained a scalable RESTful API integration for generating bulk COVID-19 test requisitions using AWS Lambda, Amazon SQS, and Amazon S3
- Increased the speed of costly user access checks by approximately 500% by identifying a use case for caching
- Improved accessibility of the Canada COVID-19 App to meet WCAG 2.0 guidelines by streamlining screen reader behaviour with clear ARIA labelling and component hover & focus states

Projects

Potatofy | Python
- Questrade integrated desktop GUI application for simplified rebalancing of investment portfolios
- Calculates shares to buy/sell using current market prices to achieve users' target asset allocations
- Securely requests user financial information using OAuth 2.0 authentication via the Questrade API

contrast-checker | Rust
- Rust-based CLI tool for calculating contrast ratio between two colours based on Web Content Accessibility Guidelines
- Implemented support for calculations using RGB or Hex colour models

ADASPlusML | Python, Scikit-learn, pandas
- Trained a machine learning model with Scikit-learn to score the ADAS-Cog Plus cognitive assessment for Alzheimer's Disease
- Performed 10-fold cross validation to test the accuracy of the multiple linear regression model

Education

University of British Columbia   **Sep 2019 – Present**
Bachelor of Computer Science (Integrated Computer Science)   *Vancouver, BC, Canada*
- Cumulative GPA: 92.1%
- Expected graduation: May 2022

University of British Columbia   **Sep 2011 – May 2016**
Bachelor of Science in Integrated Sciences (Neuroscience & Physiology)   *Vancouver, BC, Canada*
- Cumulative GPA: 86.3%

Skills

Languages	Java, Kotlin, TypeScript, JavaScript, Golang, SQL, Python, Rust, C++, R, HTML, CSS
Tools	Git, Node.js, PostgreSQL, Docker, LaTeX
Frameworks	Spring, JUnit, Mockito, React, Redux, Mocha, Chai, REDCap