Andrew Cheung

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Education

University of Washington Aug. 2018 - Expected Dec. 2023
BS/MS, Computer Science (GPA: 3.83) *Seattle, WA*

Skills

Java, JUnit, TypeScript, React, Node, Python, C++, gdb, git, Linux

Experience

Amazon Jun. 2022 – Sep. 2022
Software Development Engineer Intern *Bellevue, WA + Remote*

- Lead development of skill tree training service for Amazon associates
- Design project infrastructure to scalably support over 300,000+ Amazon associates while minimizing cost
- Implement TypeScript frontend/backend using AWS Lambda, DynamoDB, and React
- Write and present project's design documents to stakeholders of 20 team members

UW Programming Languages & Software Engineering Lab Dec. 2021 – Present
Research Assistant *Seattle, WA*

- Compose compiler rewrites for Glenside, an internal representation of tensor operations
- Explicate ILA code representing machine learning operations, allowing for formal verification
- Import MLPerf models into Relay to facilitate experiments on compiler performance
- Collaborate with researchers in UW, Princeton, and Harvard as a member of the 3LA research team

Paul G. Allen School of Computer Science and Engineering Sep. 2019 – Jun. 2022
Section Lead Teaching Assistant *Seattle, WA*

- Teach a weekly class of 25 students in introductory Java and object-oriented design principles
- Lead weekly meetings with course faculty on teaching strategies to prepare staff for their sections
- Create assignments for students aimed at isolating and testing specific programming constructs
- Collaborate with a team of 20+ TAs to compose teaching resources, ensuring consistent instruction standards

Projects

CSE 142 Grading Assistant Tool

- Lead development of autograder in Python, which analyzes and grades ~210 homework assignments a week
- Delegated and communicated AST queries and static analysis tasks to unfamiliar team members
- Collect and implement weekly feedback from instructors and staff
- Maintain code correctness and quality of testing before tool deployment

Chip-8 Interpreter

- Created Java interpreter for the Chip-8 assembly language, correctly executing 36 operation codes
- Used modular design principles to maintain code organization of CPU, display, and keyboard components