Omar Ibrahim

University of Washington

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Skills

I have taught programming in Java, Python, JS, HTML, CSS, Racket, Ruby, and SML. I have experience programming with Java, JS, HTML, CSS, Python, R, PHP, and am familiar with C, Ruby, SML, Racket, Haskell, Prolog, and MySQL. I have experience doing web development with Bootstrap, React, and Redux. I have design experience using Sketch, Figma, and Lightroom.

Education

University of Washington / BS in Computer Science
September 2017 - June 2021, Seattle, WA

GPA: 3.72

Minor in Informatics

Minor in Music

Dean's List

Teaching Experience

CSE 142: Computer Programming I / Spring '18 - Present
Head Teaching Assistant / Autumn '20 - Present

In addition to ugrad TA duties, I schedule and lead meetings with the course TA staff, lead TA group, and course instructors. I advise other TAs, manage and develop course infrastructure, develop and update the course site, and work to ensure TAs complete their duties on schedule.

Exploration Sessions Lead TA / Autumn '19, Winter '20

In addition to ugrad TA duties, I organized, held, and gave talks to intro CS students on computing-related topics. I held talks and panels on a variety of computing- and industry-related topics, and personally gave talks on esoteric programming, the basics of how computers actually work, Turing machines and completeness, and the halting problem.

Grading Lead TA / Autumn '19, Winter '20

In addition to ugrad TA duties, I wrote and reviewed assignment grading criteria, wrote new assignments, trained new TAs to grade, and spot-checked other TAs' grading for consistency.

Community Lead TA / Spring '19

In addition to ugrad TA duties, I took on some administrative duties related to the management of the course infrastructure and the TA staff.

Undergraduate TA / Spring '18, Autumn '18

Taught introductory programming concepts in Java to a small section of around 20 - 25 students. Duties included teaching a weekly quiz section, holding office hours, reviewing, grading, and providing feedback for student code, and proctoring and grading exams.

CSE 341: Programming Languages / Spring '20
Undergraduate TA / Spring '20

Co-taught programming language concepts and implementations to a small section of around 20 - 25 students through the lenses of SML, Racket, and Ruby. Duties included teaching a weekly quiz section, holding office hours, reviewing, grading, and providing feedback for student code, and grading quizzes biweekly.

CSE 143: Computer Programming II / Winter '19
Undergraduate TA / Winter '19

Taught introductory Object-Oriented Programming concepts and basic data structures in Java to a small section of around 20 - 25 students. Duties included teaching a weekly quiz section, holding office hours, reviewing, grading, and providing feedback for student code, and proctoring and grading exams.

Industry Experience

Amazon Web Services / Software Development Engineer Intern
June 2020 - September 2020

I worked on the EC2 Capacity Insights team. I did fullstack development on a new feature for an internal EC2 insight tool. I designed the feature using Sketch and wrote a Java backend that connected to an existing frontend built using React and Redux. I also worked on and added features to said frontend. The project was developed and deployed through AWS.

Citrix Systems / Software Development Intern
June 2019 - September 2019

I worked on the Workspace Security Team for Netscaler. My work included using Bash and Azure to ensure the security of internal dev environments, using Bash, Python, and AWS to improve automated tasks to help modernize and improve workflow efficiency of engineers, and using jQuery to work on full-stack creation of features for customer troubleshooting. I also started the process of transitioning my team's infrastructure from jQuery to React.

Washington River Protection Solutions / Ugrad Intern - Technical
June 2018 - September 2018

I created near-real-time data visualizations for nuclear waste treatment facilities on the Hanford site using PI Systems and JavaScript. I also built and updated attribute templates for data organization and management on PI Asset Framework servers using R and SQL.

Pacific Northwest National Laboratory / Science Research Intern
August 2016 - May 2017

I updated mass spectrometry contaminant databases to provide a higher level of precision to mass spec analysis results. I worked on debugging and testing of new mass spec data analysis application Formularity to ensure reproducible and accurate measurements.