

Jacob Nishimura

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Education

University of Iowa Combined BS/MS Program
M.S. Electrical & Computer Engineering

Iowa City, IA
Expected Spring 2021

B.S. Electrical Engineering B.A. Music
Minors: Computer Science and Math

Fall 2016 - Spring 2020
GPA: 4.0/4.0

Work Experience

Software Development Engineer Intern
Amazon.com

May 2019 – August 2019
Seattle, WA

- Designed and implemented service (Java) to query for top-selling products, retrieve relevant product attributes (e.g. name, price, description), and display products to the customer on team's store page
- Researched latency issues in project and implemented pagination of product results, decreasing p90 latency by ~75%
- Collaborated with UX designer to create a positive customer experience and implemented code to perform A/B testing (with internal tool) of project on production servers
- Created development pipeline (with internal tool) with approval steps (e.g. test coverage, dependency conflicts, integration tests) to continuously deploy and test changes on development environments

Research Assistant

January 2019 – Present
Iowa City, IA

Holo Reality Lab

- Researching techniques on encoding 3D geometry in 2D images (MATLAB) to improve trade-offs between file size and error

Teaching Assistant

January 2019 – May 2019
Iowa City, IA

Linear Systems

- Taught course material and addressed student questions for a discussion section of 30 students weekly
- Assisted students with homework and course materials during office hours three times a week
- Consistently graded and evaluated weekly homework assignments for 30+ students

Research Assistant

May 2016 – November 2017
Iowa City, IA

Center for Bioinformatics and Computational Biology

- Developed Java algorithms to generate statistics on medical data from SQL database of 100,000s of records
- Designed and improved user interfaces for both a web portal (HTML, CSS, Bootstrap) and desktop application (JavaFX, CSS) to improve user experience

Academic Projects

Internet of Things (IoT) Thermometer, Principles of ECE Design

Fall 2019

- Architected IoT infrastructure using AWS IoT, AWS DynamoDB, and AWS Simple Notification Service
- Integrated IoT Thermometer and front-end monitoring page with AWS services using AWS SDKs for Python and JavaScript
- Updated temperature plot in real-time on front-end monitoring page using plotly.js graphing library

Skills

Programming Languages: Java, C++, MATLAB

Software Tools: Spring MVC, Google Guice, JUnit, Mockito, MySQL, Git, Weka, ImageJ

Cloud Services: AWS CloudWatch, AWS DynamoDB, AWS EC2, AWS IoT, AWS SNS