

Jonathan Mascarenhas

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EXPERIENCE

Quality Assurance Engineer Intern

Amazon

June 2024 – Aug 2024

Boston, Massachusetts

- Improved automated test coverage for the Blink-Alexa integration from **23% to 52%** using the **Kotest** framework - covering **unit, functional, integration, regression, and acceptance** tests.
- Identified relevant test scenarios and criteria, set up and configured test environments, and developed a comprehensive test plan in collaboration with developers, QA engineers, stakeholders, and members of the external Alexa team.
- Implemented locale-specific testing for the Blink launch in Mexico by adding functionality for running the test framework in es-MX.
- Developed a **test traceability matrix** and documentation in **JIRA**, and built a test suite in **TestRail** to track automation coverage.
- Independently executed tests, identified defects, and ensured functionality met requirements. Collaborated with teams to resolve issues, provided triage support, and tracked bugs from detection to resolution.

Software Engineer Intern

Blackboard Inc.

May 2023 – Aug 2023

Remote

- Migrated key components of Blackboard's legacy AngularJS codebase to the "Ultra" frontend using **React** and **Redux**. Utilized **HTML, CSS, TypeScript, AngularJS**, (frontend) and **Java** (backend).
- Resolved critical issues including broken **REST API** endpoints in the Java backend, unexpected client-side popups, and a malfunctioning datetime picker, enhancing system reliability and user experience.
- Conducted **feature, REST API, unit, and integration testing** with **Postman, TestNG, RestAssured, and Jasmine**; performed **UI testing** with **Selenium WebDriver**. Inspected test results in a **Jenkins-Kubernetes** server.

Undergraduate Teaching Assistant

EECS @ South Dakota School of Mines and Technology

Aug 2022 – May 2024

Rapid City, South Dakota

- Wrote **python** scripts that auto-graded over **100** student program submissions at a time.
- Assisted students with learning Python fundamentals, in addition to working with libraries such as **NumPy, Pandas, and Matplotlib**.
- Built a web application for simplifying the grading process and reducing errors associated with manual grading procedure.

PROJECTS

Performance Report Generator

Amazon

Aug 2024

AWS Lambda, SES, S3, Python, Kotlin

- Developed a **Python**-based tool to report failure rates and time metrics (average, minimum, maximum) for Blink-Alexa commands after running performance tests.
- Integrated **AWS** services including **Lambda, SES, and S3** to enhance scalability and performance for larger test runs.
- Implemented **CI/CD** by running performance tests in a pipeline and sending reports to stakeholders on a regular basis.

Auto Grading Tool

Undergraduate Teaching Assistant - EECS @ SDSM&T

Aug 2022

React, JSX, HTML, CSS, Python

- Built a **React** based web application for organizing student grades, implementing features such as sorting and filtering to improve grading experience for course faculty.
- Reduced grading time for student submissions by roughly **50%**, in addition to reducing errors associated with manual grading.
- Setup a local server using **json-server** library to perform **CRUD** (create, read, update, delete) operations on student data.

RecruitLab

South Dakota School of Mines and Technology

Sep 2022 - Dec 2022

C#, ASP.NET, SQL

- Designed and implemented a web application using the **ASP.NET MVC** framework (**C#**) that helps recruiters keep a record of students during college career fairs.
- Built the user interface and user experience (**UI/UX**) and implemented features such as user authentication, sorting, and filtering.

EDUCATION

South Dakota School of Mines and Technology

B.S. in Computer Science (GPA - 3.66/4.00)

Rapid City, South Dakota

Aug 2021 – May 2025