Alexander Barcenas

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Experience

Amazon - *Software Development Engineer* **9/2018 - present**

- Launched the first service mesh product under AWS which leverages the Envoy proxy, AWS App Mesh.
- Designed, implemented, and managed feature launches for AWS tag support and IPv6 support for App Mesh.
- Made service improvements resulting in a 99% processing time reduction enabling our service to handle more load.
- Implemented a mechanism to dynamically configure integration tests for testing different code paths and behaviors.
- Developing for services based in Java and writing integration tests using the Cucumber test framework and Java.
- Actively mentoring other team members through one on ones and mentored an intern who was given a return offer.
- Adding and improving infrastructure implemented using Ruby such as dashboards, pipelines, and alarms.
- Diagnosing, resolving, and presenting summaries for operational events and customer issues for three years.

Amazon Lab 126 - *Software Development Engineer Intern* **6/2017 - 9/2017**

- Worked within the Alexa Voice Services division responsible for implementing product features for Amazon Alexa.
- Implemented a feature which added a new user interaction to a development hardware platform with Alexa support.
- Wrote C++ code which acted as an interface between Alexa and hardware to control onboard lighting functionality.
- Managed threads to read and write data from hardware interfaces and handle multiprocessor synchronization.
- Documented and presented my work during the internship to engineers and others on the team.

UCSD CSE Department - *Computer Science Tutor* **9/2016 - 6/2017, 9/2017 - 12/2017**

- Mentored hundreds of students on the basics of object oriented design, data structures, and software engineering.
- Assisted students with the process of diagnosing compilation and runtime errors in C++, C and Java.
- Coached students on how to decompose program specifications and adhere to style requirements.
- Provided guidance to students during lab exercises that teach them new concepts and technologies.

Students for the Exploration and Development of Space, UCSD - *Software Engineer* **10/2015 - 10/2016**

- Developed software in C++ used to operate a cube satellite for NASA's Cube Quest Challenge.
- Won third place in a NASA Ground Tournament surpassing other universities and companies.
- Integrated with other subteams in order to ensure that the software met all of their requirements for a lunar mission.
- Researched and learned from academic papers detailing software utilized by other cube satellites.
- Designed the cube satellite software architecture and wrote documentation used in submissions sent to NASA.

Programming Languages and Skills, Ordered by Prociency

Programming Languages: Java, C/C++, Python, Swift, Ruby, HTML, CSS, Javascript

Skills: Git, Docker, Cucumber, Xcode

Education

B.S., Computer Science, UC San Diego Graduation Date: June 2018 GPA: 3.76

Projects

Tic Tac Toe Mania **12/2016 - 1/2017**

- Released a Swift iOS app that allows users to play ultimate tic tac toe games against another person or a computer.
- Implemented artificial intelligence using minimax with alpha-beta pruning for both tic tac toe and ultimate tic tac toe.
- Used touch gesture recognizers in order to allow users to interact with and make moves on the tic tac toe boards.
- Worked with Google's AdMob platform to monetize the app generating $10 in revenue by displaying banner ads.