

Alexander Barcenas

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Education

B.S., Computer Science, UC San Diego

Graduation Date: June 2018

GPA: 3.77

Relevant Coursework (Planned completion by Summer 2016)

Completed:

- Basic Data Structures and Object-Oriented Design (CSE 12)
- Math for Algorithms and Systems (CSE 21)
- Computer Organization and Systems Programming (CSE 30)

Ongoing:

- Advanced Data Structures (CSE 100)
- Introduction to Data Science (COGS 9)

Planned:

- Design and Analysis of Algorithms (CSE 101)
- Software Engineering (CSE 110)

Skills

Computer Languages: Swift (Proficient), Java(Proficient), C, C++, S.P.A.R.C. Assembly

Experience

Cubesat - Avionics Software Engineer

(10/2015 - present)

- Developing software for a cube satellite for NASA's CubeQuest Challenge. 15+ hrs a week
- Designing and implementing algorithms that will correct data transmission errors.
- Constructing an interface that allows us to determine the position and orientation of the cubesat.

Stanford Swift course

(6/2015 - 9/2015)

- Over the summer I took a Stanford course for iOS programming in Swift.
- I learned how to use Xcode to program and build iOS applications.

Graphing calculator

(7/2015 - 9/2015)

- Developed a stack based graphing calculator for iOS devices using Swift.
- Created different modules that transfer and display information to each other.
- Designed the graphing calculator to be able to handle the user touching the screen.

Membership

Students for the Exploration and Development of Space (SEDS), UCSD

(10/2015 - present)

- SEDS is a national student organization that undertakes space related projects.
- The SEDS chapter at UCSD was the first undergraduate organization to design, print, and test a metal 3D printed rocket engine.
- I develop software that will be used on our cubesat for our Moonshot Alpha project.