

Alexander Barcenas

akbarcen@ucsd.edu · (925)-759-0679

Website: akbarcenas.github.io
LinkedIn: [linkedin.com/in/akbarcenas](https://www.linkedin.com/in/akbarcenas)
GitHub: github.com/AKBarcenas

Education

B.S., Computer Science, UC San Diego

Graduation Date: June 2018

GPA: 3.74

Computer Languages

Proficient: C++, Swift

Familiar: Java, C, HTML, CSS, Javascript

Experience

UCSD CSE Department - CSE Tutor

(9/2016 - present)

- Mentoring students on the basics of object oriented design, data structures, and software engineering.
- Assisting students with the process of diagnosing compilation and runtime errors in C++, C and Java.
- Helping students decompose program specifications and follow style requirements.
- Providing guidance to students during labs 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++ that will operate a cube satellite for NASA's Cube Quest Challenge.
- Won third place in NASA's Ground Tournament-2 beating other universities and companies.
- Collaborated with other subteams in order to ensure that the software met all of their needs for the mission.
- Researched and learned from academic papers about software utilized by other cube satellites.
- Designed the cube satellite's software structure and constructed a UML class diagram for the design.
- Wrote and revised cube satellite software documentation used in submissions sent to NASA.

Projects

Tic Tac Toe Mania

(12/2016 - present)

- Developed and released an iOS app that allows users to play 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.
- Working with Google's AdMob platform to monetize the app by displaying banner and interstitial ads.

POGOGUIDE

(7/2016 - present)

- Developed and released an iOS game guide app for Pokemon Go that is used daily and has been installed 500 times.
- Utilized table and collection views in order to present information and tools for the games.
- Implemented a tool that evaluates Pokemon matchups and displays all favorable Pokemon matchups for gym battles.

Verimark - Project Manager

(3/2016 - 6/2016)

- Oversaw nine other students during the development of an document e-signing application.
- Upheld project deadlines resulting in the second highest project score out of 20 student teams.
- Conducted code reviews and testing which led to successful implementation of basic app functionality.

Relevant Coursework (Planned completion by Summer 2017)

Completed:

- Advanced Data Structures (CSE 100)
- Software Engineering (CSE 110)
- Design and Analysis of Algorithms (CSE 101)
- Human-Computer Interaction Design (CSE 170)
- Computer Operating Systems (CSE 120)

Ongoing:

- Computer Networks (CSE 123)

Planned:

- HCI Programming Studio (COGS 121)
- Introduction to Computer Security (CSE 127)
- Programming Languages (CSE 130)