

# Spencer Albrecht

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## EDUCATION

**University of Southern California, Los Angeles, CA**  
*Bachelor's Degree in Computer Science*  
June 2017 - August 2019

**University of California, Santa Cruz, Santa Cruz, CA**  
*Bachelor's Degree in Computer Science*  
September 2015 - June 2017

## EXPERIENCE

**Software Engineer Contractor, US Marine Corps — Los Angeles**  
October 2017 - June 2018

- Developed Android application which catalogs military assets with 97% accuracy using machine vision
- Awarded \$5,000 contract with U.S military and partner organizations as a winner of SD Hacks 2017
- Reduced inventory processing time by 40% by eliminating the paper based system

## PROJECTS

**Real Estate Investment Tool — July 2018 - August 2018**

- Programmed web tool that returns properties with specific investment parameters
- Implemented application logic in Python and graphs in Plot.ly
- Deployed on Flask web-server provisioned inside an Amazon AWS EC2 instance

**Online Book Store — June 2018 - July 2018**

- Built web application using Google Books API which shows users book results by title, thumbnail, author, rating, and description
- Users could create profiles, sign in, follow other users, star books, and search for other users on the platform
- Programmed in Java with JavaServer Pages and AJAX

**Search Engine — March 2018 - April 2018**

- Created search engine in C++ that indexed thousands of pages
- Integrated page rank algorithm to display relevant results
- Utilized advanced data structures in C++ for efficient searches

**Green Screen Algorithm — September 2017 - October 2017**

- Designed bitmap image processor in C++ for background replacement in photos
- Engineered custom processing approach for pixel value differentiation with 99% accuracy
- Mastered use of command line input, multi-dimensional arrays, and binary masks for large input images

**Maze Solver — September 2017 - October 2017**

- Created fast maze solving program in C++
- Incorporated complex searching algorithm to find shortest possible solution
- Solved extremely large mazes quickly if solution existed

## EXTRACURRICULARS

**Scope** 09/2017-Current

- Executive board member on USC's premier software engineering club
- Developed Electron curriculum for 50 students
- Selected from more than 150 applicants

**Solar Car Team** 09/2017-Current

- Executive board member on team designing solar car
- Software lead of 20 member team
- Oversee data transmission and live visualization

## AWARDS

- **CruzHacks Winner** - January 2019
- **Forbes Under 30 Scholar** - September 2018
- **\$10K Edison Scholarship Winner** - August 2018
- **\$10K Rose Hill Scholarship Winner** - August 2018
- **Dean's List** - June 2018
- **SD Hacks Winner** - Oct. 2017
- **Dean's List** - March 2017

## SKILLS

- Python (Advanced)
- Java (Advanced)
- C++ (Advanced)
- Javascript (Intermediate)
- Electron (Intermediate)
- SQL (Intermediate)
- React Native (Beginner)