# Brent Sienko

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## EDUCATION

**UNIVERSITY OF CALIFORNIA, BERKELEY**
Electrical Engineering and Computer Science, B.S.
Graduation Date: May 2020
GPA: 3.6/4.0

## LINKS

LinkedIn: linkedin.com/in/brent-sienko-027581121
Personal Website: brentsienko.github.io
Facebook: facebook.com/brent.sienko

## TECHNICAL SKILLS

### PROGRAMMING

- Python
- Java
- Git
- C
- SQL
- LabVIEW
- MATLAB

### OTHER SOFTWARE

- IntelliJ IDEA
- Android Studio
- Fusion 360
- AutoCAD

## COURSEWORK

### COMPUTER SCIENCE

Efficient Algorithms & Intractable Problems
Artificial Intelligence
Probability & Random Processes
Optimization Models & Applications
Data Structures
Machine Structures

### MATH

Discrete Math
Probability Theory
Linear Algebra
Multivariable Calculus
Differential Equations

### ELECTRICAL ENGINEERING

Signals & Systems
Circuit Analysis/Design
Control Theory

## EXPERIENCE

**Aerojet Rocketdyne |** Avionics Engineering Intern
Special Test Equipment Team: May 2018 – August 2018

- Developed test software for Advanced Electric Propulsion System w/LabVIEW
- Implemented IVI Oscilloscope Drivers in combustion engine test system to increase software versatility and reliability w/LabVIEW

## PROJECTS

### BEAR MAPS [2018]

- A web mapping application inspired by Google Maps and the OpenStreetMap project
- Developed the back end web server that powers the API and supports user interaction via HTML file
- Implemented map rastering and configured routing/location enabling scrolling, zooming, and route finding through the interface
- Modified SAX dataset parser methods to construct a graphical representation of the map contents for Berkeley area from an OSM XML file
- Utilized various data structures to manage the large data set and implemented A* search algorithm to optimize asymptotic runtime for user route finding

### PROJECT SIXT33N [2017]

- SIXT33N, a three-wheel, intelligent, mobile robot that responds to voice input
- Built the integrated microphone front end circuit which incorporates PCA classification to process and recognize specific audible commands and react accordingly
- Implemented a proportional closed-loop feedback control system to control speed and direction for its two motorized wheels

### CS61BYOG [2018]

- Designed a fully functional 2-D tile-based interactive game using the Java programming language
- Developed and implemented a randomized 2-D world generating algorithm that constructs tile layouts of unique size and shape
- Incorporated a UI that supports interactive features: single player movement, HUD, multi-level/life gameplay, and saving/reloading game states