Joshua Field

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Education

Northeastern University | Candidate for BS in Electrical & Computer Engineering

GPA: 3.88 | **Graduation Date:** May 2021
Relevant Courses: Engineering Cornerstone 1 & 2 | Calculus 2 | Differential Equations | Embedded Design
Activities: ChemE Car | IEEE | AIAA

Arcadia High School

GPA: 3.93 | **SAT:** 2120 | **Graduation Date:** June 2017
Relevant Courses: AP Calculus AB | AP Physics C | AP Chemistry | AP Computer Science A | AP Comparative Government | AP English Literature
Activities: Boy Scouts | Marching Band Section Leader | Varsity Goalkeeper | Taekwondo 3rd Degree Black Belt

Experience

California Institute of Technology | Research Engineering Intern — May '18 - Aug '18

Python, AWS, Arduino, Android Studio

- Worked on a smart maitenance sensor network that monitored the treatment of waste water using an Arduino & Raspberry Pi
- Developed an Android app using Android Studio, NoSQL & Amazon Web Services (DynamoDb, IoT, Cognito, Lambda)

College of Engineering Connections Computer Lab | Lab Assistant — Jan '18 - Apr '18

- Run the head desk. Assist with general IT help.

Northeastern University ResMail | Mail Services Associate — Oct '17 - Dec '17

- Sorted and delivered mail. Also audited & updated the computerized database.

Johns Hopkins Engineering Innovation | Summer Course — Jun '16 – Aug '16

- Used truss analysis to create the strongest spaghetti bridge.
- Reverse engineered a light sensing robot to create logic tables and program our own robots.

Awards

National Merit Commended Scholar | 2017

- Was awarded to the top 3.3% of students nationally

Eagle Scout | 2017

- Was awarded the rank of Eagle Scout in February 2017. Led multiple troop meetings of 70+ scouts.

AP Scholar with Distinction | 2017

- Was awarded for having higher than a 3.5 average AP test score for more than 5 tests.

Skills

Programming Java, C++, Python *Familiar with* C, HTML, MATLAB, CSS
Computer Android Studio, AWS, Simulink SolidWorks, AutoCAD, Microsoft Office, Adobe Photoshop & Lightroom

Projects

Piezoelectric Keyboard

C, Arduino, Solidworks, AutoCAD

Used piezoelectric sensors attatched to a keyboard. Built a full-wave diode rectifier & coded an Arduino to measure the power generated.

Wiimote Robotic Arm

C++, Simulink, FPGA

Used Simulink to generate PWM signals on a ZedBoard FPGA, which controlled servos in the arm. Used C++ to connect the bluetooth signals of a Wiimote to interact with the FPGA.