

Joshua Field

<https://joshafeld.com>

626.616.6320

joshfield99@gmail.com

github.com/joshField

[linkedin.com/in/joshafeld](https://www.linkedin.com/in/joshafeld)

Education

Northeastern University | Candidate for BS in Computer Engineering

Boston, MA

GPA: 3.88 | **Graduation Date:** May 2022

Relevant Courses: Digital Design & Computer Architecture | Circuits & Signals | Embedded Design | Discrete Structures | Calculus 3 | Differential Equations

Activities: AerospaceNU | NUAUV Project Lead

Awards: Eagle Scout | Dean's List | NASA Space Apps Hackathon - Boston (1st Place)

Experience

Scientific Systems Company Inc. | Software Co-op (Autonomy Group) Jan '19 - Jun '19

Woburn, MA | C++, Python, MATLAB

- Developed collaborative autonomy software for path planning missions, focusing on algorithm development and simulation testing
- Worked on and tested in simulation Multi-UAV RF localization software
- Created a graphical interface to visualize simulation log output using wxPython

California Institute of Technology | Research Engineering Intern

May '18 - Aug '18

Pasadena, CA | Python, AWS, Arduino, Android Studio, SQLite

- Developed a smart maintenance sensor network that monitors the treatment of waste water using an Arduino & Raspberry Pi
- Coded an Android app using Android Studio, SQLite & Amazon Web Services (DynamoDB, IoT, Cognito, Lambda)

Johns Hopkins Engineering Innovation | Summer Course

Jun '16 - Aug '16

Pasadena, CA | SolidWorks

- Built the strongest spaghetti bridge in course competition using truss analysis
- Reverse engineered and rebuilt a light sensing robot

Skills

Programming: C++, Python, MATLAB *Familiar with* Java, C, C#

Technology: Android Studio, AWS, Unity, SQLite, Simulink, SolidWorks

Projects

Alpha Pilot Competition

Spring '19

Python, OpenCV

- Created an object classifier with a YOLO architecture
- Worked on quadrotor localization and control models in FlightGoggles simulator

Wiimote Robotic Arm

Spring '18

C++, Simulink, FPGA

- Created a Simulink program to generate PWM signals on a ZedBoard FPGA, to control servos in the arm
- Coded a C++ program to connect the bluetooth signals of a Wiimote to interact with the FPGA