Joshua Field

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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: AeroNU | NUAV Project Lead

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

Experience

Scientific Systems Company Inc. | Robotics & UAV Co-op — Jan '19 - Present

Woburn, MA | C++, Python, MATLAB

- Wrote collaborative autonomy software for path planning missions
- Worked on and tested Multi-UAV RF localization software

College of Engineering Connections Computer Lab | Lab Assistant — Jan '18 - Dec '19

Boston, MA

- Monitor lab and equipment usage
- Assist students with computer applications and maintain lab cleanliness

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, Java *Familiar with* C, C#, MATLAB

Computer: 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