EVAN PATRICK

Looking for Software Engineering Internship, Summer 2020

@ edp46@cornell.edu (631)-624-5575 evandanielpatrick.com linkedin.com/in/evandpatrick github.com/evandp

EXPERIENCE

UBER ATG

Software Engineering Intern

May 2019 – August 2019 Pittsburgh, PA

- Designed and implemented system on autonomous vehicle to communicate between the main software stack and failsafe device in order to minimize bandwidth usage.
- Implemented a highly efficient and reliable linear algebra library in C. This project is a fundamental dependency for vehicle pose estimation.

CUAIR | UNMANNED AIR SYSTEMS

Platform Lead

September 2017 – Present Ithaca, NY

- Subteam leader of project team that creates an autonomous fixed winged aircraft capable of waypoint navigation and ground target detection.
- Lead subteam to create plane system infrastructure and ground server while utilizing HTTP, inter-process communication, and frontend/backend development.

PHIZZLE INC.

Software Engineering Intern

June 2016 – August 2018 New York, NY

- Developed high performance IoT edge computing solution to generate C++ code based on a JSON rule set. This resulted in ∼90% fewer computations when compared to the company's previous solution.

FRC ROBOTICS TEAM 3624

Director of Engineering

Sept. 2013 – June 2017 Melville, NY

- Led highschool team of 60 students to design, manufacture, and program a robot for the 2017 challenge.
- As director of engineering, the team made the highest performing robot in its history by being two-time finalists.

TECHNICAL SKILLS

Programming

Java | Python | C/C++ | C# | NodeJS | Verilog | LaTeX | Kotlin | JavaScript | HTML | CSS

Frameworks/Tools

Git | Linux | ROS | TravisCI | SQLite3 | Postgresql | Numpy | Flask | Express | Java Spring | Docker

EDUCATION

B.S. Computer Science
Robotics and Business Minor

Cornell University

Expected May 2021 Ithaca

- GPA: 3.82 / 4.0
- Dean's List: All semesters

PROJECTS

AMAZEBALL

- Embedded system with custom GPIO and I2C drivers that interfaces with an LED matrix and an IMU to play a maze game by tilting the board.

GAZEBO ROBOT

- Controlled a simulated robot to perform various tasks with ROS. Utilized Markov decision processes, inverse kinematics, path planning and pure pursuit path following.

GAME LOBBY

- Ocaml library that runs an AI against an arbitrary board game. Uses Monte Carlo tree search as it's core algorithm.

CRITTER WORLD

- Client/Server based simulator that had critters with a mutating language. Over time, these critters would evolve for desirable traits.

COURSEWORK

- CS 2112 – Honors Data Structures (TA)
- CS 3110 – Functional Programming (TA)
- CS 4750 – Foundations of Robotics
- MAE 6790 – Sensor Planning and Control
- CS 6770 – Graduate Computer Vision
- CS 4820 – Algorithms
- CS 3420 – Embedded Systems
- CS 2800 – Discrete Structures
- ECE 2300 – Digital Logic

AWARDS

MOST POPULAR TEACHING ASSISTANT

- Voted most popular teaching assistant for CS 3110 in Spring 2019

ASSET SPONSORSHIP WINNER

- Winner of $2,000 award for passionate STEM highschool students. Sponsorship luncheon attended by my superintendent.