SAM SALTWICK

STUDENT AT THE UNIVERSITY OF MARYLAND

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Skills

PROGRAMMING LANGUAGES

Python
Java
MATLAB
Processing
Arduino
HTML
CSS
Ruby
C
Rust
OCaml
Verilog

SOFTWARE TOOLS

Apache Spark
NVIDIA Rapids AI
Anaconda
PyTorch
OpenCV

Relevant Coursework

Introduction to Object Oriented Programming I & II
Introduction to Computer Systems
Discrete Mathematics
Organization of Programming Languages
Algorithms
Signals and Systems Theory I & II
Linear Algebra
Computer Vision
Data Structures
Engineering Probability
Computer Organization
Autonomous Control of Interacting Robots
Computer Graphics

Summary

Motivated Computer Engineering Honors student seeking a full time position for after graduation. Building intensive projects for coursework and personal knowledge, with a focus in Computer Vision and Machine Learning. Experienced with collaboration and research driven work.

Education

University of Maryland Honors College, College Park
B.S. Computer Engineering 2020
GPA: 3.72

Employment

Booz Allen Hamilton — Central Maryland Office
Summer Games Intern — June 2019 to Aug. 2019
Researched AI driven methods for mapping cyber networks
Used ML to accurately fill in missing network data and predict traffic
Worked in a small team to fulfill research goals
Presented research outcomes to firm leadership

Coder Kids — Mclean Virginia
Tutor — Sept. 2017 to May 2018
Teaching children ages 6-13 basic computer science concepts
Helping students set SMART goals for each session
Developing production tools to enhance company workflow
Contributed to enrichment program expansion through the creation of a promotional video

Product Developer — McLean Virginia — Aug. 2018 to Current
Designing novel courses for use in enrichment programs and studio instruction
Learning several programming languages and frameworks to teach students
Creating instructional video content for students
Implementing courses in enrichment programs and at the Coder Kids studio

Tourneau — New York, NY
Information Technology Intern — June 2017 to July 2017
Built and configured CentOS 7 Server
Developed proof-of-concept Chef Configuration Management system
Created a short film for a company event in Adobe Premiere Pro and Adobe Photoshop
Learned valuable communication skills through corporate presentations

Projects

Drone Localization and Mapping — Dec. 2018
Implemented Bayesian Network solution to SLAM
Used drone imagery to localize and track movements
Improved SLAM results using GTSAM factor graph algorithm

Automated Video Segmentation — Nov. 2018
Implemented Adobe Rotobrush in MATLAB
Segmented foreground from background across video frames

Oversand Vehicle Team Project — Oct. 2016 to Dec. 2016
Worked towards building a robot that could measure and neutralize a chemical pool
Designed and built electrical circuits to power, control, and fulfill given tasks
Programmed an Arduino to control motors, ultrasonic sensors, and radio communicators
Presented our design and build process to a class of 40 students as well as several professors

Autonomous Unmanned Systems Research — Spring 2017 to Spring 2018
Researched a method to autonomously detect terrorist attacks in public areas
Used Python with OpenCV and Tensorflow to recognize objects
Developed research paper and video presentation of current work
Built simulation to accurately model various efficient navigation algorithms

Genetic Algorithm Simulation — Mar. 2018
Simulated genetic based path finding algorithm in p5.js
Experimented with different obstacles and growth rates
Created custom in-browser visualization tool

Awards

A. James Clark School of Engineering · Dean's List — Spring 2018
Received a spot on the Dean's List four consecutive semesters

Activities

Research Peer Mentor — Jan. 2018 to May 2018
Assisted current student researchers with their projects
Organized and developed lab tools and methods
Prepared labs and lectures for students
Communicated between students and research educator