

# SAM SALTWICK

✉ sam@saltwick.com

🌐 www.saltwick.com

☎ 862-221-2430

📍 Laurel, MD 20724

in /in/samsaltwick

🌐 saltwick

## Skills

### PROGRAMMING LANGUAGES

Python

Java

MATLAB

C

### TOPICS

Deep Learning

Data Visualization

Signal Processing

Natural Language  
Processing

Computer Vision

Image Processing

## Relevant Coursework

Deep Learning

Computer Vision

Autonomous Control of  
Interacting Robots

Signals and Systems  
Theory I & II

Control Systems

Engineering Probability

Data Structures

Algorithms

Linear Algebra &  
Applications of Linear  
Algebra

Computer Graphics

Operating Systems

Computer Organization

Organization of  
Programming Languages

Introduction to Object  
Oriented Programming I  
& II

Introduction to Computer  
Systems

## Education

University of Maryland Honors College, College Park

B.S. Computer Engineering 2020

GPA: 3.75

## Employment

### Booz Allen Hamilton

Data Scientist

Developed NLP models to extract valuable information from open-source text using **PyTorch** and **spaCy**

Improved the functionality of an automated data aggregation tool

Reduced data collection time by improving custom web scrapers

Created impactful network data visualization tools with **Plotly**

Central Maryland  
July 2020 to Sept. 2021

### Summer Games Intern

Researched AI driven methods for mapping cyber networks

Used machine learning to accurately estimate missing network data and predict traffic

Utilized **Apache Spark**, **PyTorch**, and **NVIDIA Rapids** for accelerated computing

Presented research outcomes to firm leadership

Central Maryland  
June 2019 to Aug. 2019

### Coder Kids

Tutor

Taught children ages 6-13 basic computer science concepts

Guided students in setting SMART goals for each session

Developed production tools to enhance company workflow

Contributed to enrichment program expansion through the creation of a promotional video

McLean Virginia  
Sept. 2017 to May 2018

### Product Developer

Designed novel courses for use in enrichment programs and studio instruction

Learned several programming languages and frameworks to teach students

Created instructional video content for students

Implemented courses in enrichment programs and at the Coder Kids studio

McLean Virginia  
Aug. 2018 to Mar. 2020

## Projects

### Autonomous Interacting Robots Capstone Project

Built NVIDIA Jetson controlled robotic platform

Developed communication system between other robots

Designed navigation and vision system in **Python** and **OpenCV** used by the entire class

Fulfilled goal of navigating through hallways to a designated location

Fall 2019

### Autonomous Unmanned Systems Research

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

Spring 2017 to Spring 2018

### Drone Localization and Mapping

Implemented Bayesian Network solution to SLAM in **MATLAB**

Used drone imagery to localize and track movements

Improved SLAM results using GTSAM factor graph algorithm

Dec. 2018

### Automated Video Segmentation

Implemented Video Snapcut in **MATLAB**

Segmented foreground from background across video frames

Nov. 2018

## Activities

### Research Peer Mentor

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

Jan. 2018 to May 2018