

About Me

As an established machine learning practitioner and software developer, my aim is to apply artificial intelligence at the cutting edge and perpetually increase my expertise in the disciplines of machine learning; with the ultimate goal of becoming a leader in the field.

Education

MS in CS, Concentration in Machine Learning - In Progress

George Mason Univ. - College of Engineering and Computing

BS in CS - 2017

George Mason Univ. - Honors College - College of Engineering and Computing

Experience

Senior Data Scientist BTI 360

February 2020 - Present

Neural network design and machine learning model engineering for predictive tasks, natural language processing applications, and information segmentation.

PyTorch and TensorFlow 2, deployment in SageMaker and Kubernetes

Machine Learning Engineer Next Century (presently acquired by CACI)

January 2019 - February 2020

Research in machine learning data fusion for DARPA Media Forensics (MediFor) Program for the detection of deepfakes and other media manipulations

Model development and research in PyTorch and TensorFlow.

Associate Software Engineer and Intern Innovative Defense Technologies

July 2013 - January 2019

Machine Learning powered intelligent storage, sorting, and deletion of image files based on relevancy and task importance in a space constrained system

Python, SQLite

Rapid discovery of system vulnerabilities via ML powered fuzz testing

Python, genetic fuzzing algorithm

Architected a cost-effective system for stress testing micro services

Docker, Apache Bench, JMeter, other stress testing tools

Improved optical character recognition (OCR) on low resolution imagery

Java, Tesseract (OCR tool), statistical modeling

Technical writer on SBIR proposal team

Skills

Environments

Jupyter
AWS SageMaker
Docker
PyCharm / VSCode

Machine Learning

Deep Learning
NLP
Reinforcement Learning

Frameworks

PyTorch
TensorFlow 2
MXNet

Hobbies

Robotics

Current Project: SpotMicro, a miniature version of Boston Dynamics' Spot robot
Raspberry Pi, ROS2, 3D printing, miscellaneous hobby electronics



Raspberry Pi

Home Assistant based home automation system
Light control, security system, presence tracking
Home surveillance camera with chat bot integration for notifications
Python, Telegram
Trakr - WiFi analytics gathering program
Python, SQLite



Home Automation via Home Assistant

Various Raspberry Pi's and other low power hardware hosting home security, surveillance cameras, network wide ad-blocking, smart light control, presence detection, family location sharing and more!



MX-5 Miata

Daily driver and project car. Ask me about it!