

Education

Bachelor of Science in Computer Science

George Mason University, Honors College, 2017

Skills

Languages

Python	Advanced
Java	Intermediate
JavaScript	Novice

Machine Learning

Machine Learning	Advanced
Linear Algebra	Intermediate
Statistics	Novice

Environments

Jupyter	Intermediate
PyCharm	Novice
Docker	Intermediate

Libraries

Keras	Advanced
TensorFlow	Intermediate
PyTorch	Intermediate

Experience

Machine Learning Engineer

February 2019 - Present

Next Century, NextCentury.com

2019

Machine Learning data fusion research on MediFor Project
Python, TensorFlow, Keras, Docker

Associate Software Engineer

May 2017 - January 2019

Innovative Defense Technologies, IDTus.com

2018

Developed tools for stress testing distributed micro services and benchmarking performance for scalable systems

Docker, Apache Bench, JMeter

Continuous on-site support for customers

Architected and constructed a Continuous Integration pipeline for a customer

Jenkins, GitLab, Nexus, Jira, HipChat, Apache email

2017

Technical writer for SBIR proposal

Efficient metadata clustering and search using machine learning

Python, SQLite

Software Engineer Intern **July 2013 - May 2017**
Innovative Defense Technologies, IDTus.com

- 2016 Executed STIG security compliance test to ensure that software had been hardened to cyber security threats
Nessus, WireShark
- 2015 Rapid vulnerability discovery via machine learning fuzz testing
Python, genetic algorithm
- 2014 Improved optical character recognition (OCR) from 30% to 70%
Java, Tesseract (OCR tool), statistical modeling
- 2013 Plotted vehicle locations on NASA's WorldWind
Automated testing, unit testing and bug fixes, Code coverage reports
Java, JUnit, ECLEmma

**Personal
Projects**

Kaggle, kaggle.com/ottpeterr

- 99%+ accurate MNIST digit classification
2D conv. net, Keras
- Fraudulent purchase detection
Random forest, neural net, Keras
- New York Taxi Fare Prediction
Dataset of 50,000,000 rows w/ 12GB RAM
- Pneumonia detection using x-ray imagery
2D conv. net, image generation for training

Raspberry Pi

- Home surveillance camera Raspberry Pi with chat bot integration
Python, Telegram (chat platform), on my GitHub
- Raspberry Pi 4-node cluster for Docker Swarm

**Hobbies
and
Interests**

Home Automation

- Various Raspberry Pi's running home surveillance cameras, network wide ad-blocking, smart light control, presence detection, family location sharing and more!

MX-5 Miata

- Ask me about it!