Dylan Maus

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Summary

- Experience in the aerospace and network industries testing hardware and automating processes with Python
- Pursuing a Master of Science in Computer Science from Georgia Tech while continuing to work full-time
- Specializing in Machine Learning with a strong interest in artificial intelligence and process automation

Education and Skills

Georgia Institute of Technology, Atlanta, GA
Master of Science Candidate
Major: Computer Science
Specialization: Machine Learning
Expected graduation: May 2021
Current GPA: 4.0/4.0

Illinois Institute of Technology, Chicago, IL
Bachelor of Science (Dual Degree)
Majors: Physics and Applied Mathematics
August 2008 to May 2013
GPA: 3.13/4.00

Relevant Competencies:
Coursework: Machine Learning, Supervised Learning, Reinforcement Learning, Linear Algebra, Probability and Statistics

Programming Languages: Python, C++, Java

Technologies: Pandas, NumPy, Matplotlib, Seaborn, Scikit-learn, Flask, TensorFlow, Keras, OpenAI Gym, PyMongo

Version Control: GitHub

Preferred Environments: Linux, macOS

Recent Projects

Decision Trees
- Built decision and random tree models in Python to predict index returns based on the return of others
- Compared the performance of the decision tree against least-squares and generated datasets to defeat them

OpenAI Gym Lunar Lander
- Built an algorithm to solve LunarLander-v2 using deep Q-learning with experience replay and two neural nets
- Trained the neural nets with many different hyperparameters to find the ones which provided the best results

Supervised Learning
- Performed classification on two diverse datasets to assess the strengths and weaknesses of each algorithm
- Implemented artificial neural networks, decision trees, and k nearest neighbor algorithms

Work Experience

Arista Networks **Santa Clara, CA**
Test Automation Engineer *Jan 2020 – Present*
- Designing the API for a statistical analysis tool which uses historical data to assess the integrity of thousands of hardware units: query MongoDB, analyze distribution of performance metrics, and display results via Flask
- Developed a Flask app which reads in data from a CSV and displays an interactive plot in a web browser
- Performed four corner testing of network switches to assess performance at temperature and voltage extremes

Maxar Technologies **Palo Alto, CA**
Systems Engineer *May 2014 – Jan 2020*
- Took the initiative to automate a process used to generate command and telemetry PIDs saving the company many hours of serial labor per satellite program and reduced human error as compared to a manual approach
- Developed tools in Python to automate processes which verify the correctness of a spacecraft wiring harness saving many hours of manual work and minimizing impacts due to human error
- Wrote and debugged scripts written in Python to guide system integration, generate performance predictions, and to automate the testing of high-throughput communications satellites
- Demonstrated communications skills through negotiating with international customers on test plans and schedule impacts and to sell-off RF payload performance by proving compliance to system-level contractual requirements or by justifying non-compliances