Matthew E. Struble

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Skills

Languages: Python, C++, C, SQL, Java, Bash, LaTex.
Packages: TensorFlow, Keras, OpenCV, NumPy, Scikit-Learn, Pandas, Matplotlib.
Applications: AWS, Kubernetes, Docker, Jenkins, Airflow, Jupyter, MATLAB, Git, Neovim.

ML Experience

Lead Software Engineer - AI/ML @ Nike
Feb. 2021 - Present

- Reduced development complexities within Nike AIML by creating a unified toolset and organizing team migrations into AWS SageMaker.
- Optimized PySpark pipelines, reducing model training and inference times by 70% and improving overall model accuracy by 30%.
- Developed a standardized Python package for AWS, logging, and test reliability to reduce Data Science overhead within AWS environments.
- Led the initiative to update repositories and defined engineering best practices, reducing development time and increasing CI/CD reliability within Jenkins.
- Onboarded and coordinated offshore teams by running agile ceremonies and creating documentation on engineering standardization, expectations, and software redesign.

Mission Critical Software Engineer @ Draper (Under Contract)
Mar. 2019 - Jun. 2020

- Built data analytics tools and machine learning algorithms to assist engineers with hardware analysis.
- Processed system data, sensor data, and real-time flight data to improve GNC algorithms.
- Led the successful implementation of a CI/CD initiative, leading to an increase in operational efficiency.

Senior Software Engineer @ Raytheon (Under Contract)
Oct. 2018 - Mar. 2019

- Implemented signal processing algorithms and time-critical control functions involved in direct control of sensor systems.

Other Software Engineering Experience

Software Engineer
Jun. 2015 - Oct. 2018

- Improved speed, performance, and scalability of signaling routing to fit customers' needs in emerging markets.
- Processed real-time data for GNC Algorithms and post-test analysis.

Projects (See blog and projects at https://struble.dev)

- **Deep Learning Photo Aesthetics:** Researched modern classification models and created supporting tools to create a novel deep learning model to classify photo aesthetics.
- **Heineken AR Cheers Campaign:** Created an objective detection model on AWS for an adaptive AR experience.
- **Analyzing Climate Change Stance Through Twitter Data:** TestedNLP algorithms like bag-of-words, ensemble, and BERT, in an attempt to understand - and visualize - Americans' views of climate change over time.

Education

Georgia Institute of Technology
Masters of Science, Computer Science | Machine Learning, Computational Perception and Robotics

Champlain College
Bachelor of Science, Game Programming | *Minor:* Mathematics