Matthew E. Struble

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Skills

Languages: Python, C++, C, SQL, Java, Bash, LaTex, Lua.
Packages: PyTorch, TensorFlow, Keras, OpenCV, NumPy, Scikit-Learn, Pandas, Matplotlib.
MLOps Tools: AWS, Kubernetes, Docker, Jenkins, Airflow, Kubeflow, Git.

Experience

Lead Machine Learning Engineer - AI / ML   **Nike**
Feb. 2021 - Present   Boston, MA
- Led development of model pipelines for training, finetuning, and serving deep learning models, including SAM2, GroundingDino, and CLIP.
- Planned, designed, and worked with data scientists and product managers, to perform multiple cross-team software 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 improve Data Science workflow, and reduce production failures by 90%.
- Led the initiative to update repositories and defined engineering best practices, reducing development time and increasing CI/CD reliability within Jenkins.
- Mentored and onboarded teams by running agile ceremonies and creating documentation on engineering standardization, expectations, and software redesign.
- Designed, and implemented, transition from batch file processing to a new API endpoint for forecasting models.

Mission Critical Software Engineer   **(Under Contract To) Draper**
Mar. 2019 - Jun. 2020   Cambridge, MA
- Developed data analytics tools with machine learning algorithms to assist engineers with hardware analysis.
- Processed system data, sensor data, and real time flight data in order to improve Guidance Navigation & Control algorithms.
- Led the team as a Scrum master for incremental product development and CI/CD initiative.

Senior Software Engineer   **DoD Contractor**
Jun. 2015 - Mar. 2019   MA
- Implemented Signal processing algorithms, and time critical control functions, involved in direct control of sensor systems.
- Processed data in real time for GNC Algorithms and post-test analysis.

Projects

- **Deep Learning Photo Aesthetics:** Researched modern classification models, and developed supporting tools, in order 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:** Tested multiple NLP 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