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: Jupyter, MATLAB, Docker, Apache Tomcat, Git, SVN, Vim.

Experience

Mission Critical Software Engineer   (Under Contract To) Draper
Mar. 2019 - Jun. 2020   Cambridge, MA
- Aggregated multiple flight data sources into one unified database.
- 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 GNC algorithms.
- Took on responsibilities of Scrum Master and led CI/CD initiative.

Senior Software Engineer   (Under Contract To) Raytheon
Oct. 2018 - Mar. 2019   Tewksbury, MA
- Responsible for designing, implementing, debugging, and fixing problems with the Radar software applications.
- Implemented signal processing algorithms and time critical control functions, involved in direct control of sensor systems.
- Worked with Software Architects and Principal Systems, Hardware, and Software engineers to interpret and implement requirements.

Software Engineer   NetNumber
Jan. 2017 - Oct. 2018   Lowell, MA
- Implemented and maintained SS7 signaling protocols within product.
- Improved speed performance and scalability of signaling routing to fit the needs of customers in emerging markets.

Lead Software Engineer   General Dynamics MS
Aug. 2016 - Dec. 2017   Pittsfield, MA
- Performed scope and cost analysis for software deliverables.
- Created and maintained software development plan, software design, and software requirement documents.

Projects

Deep Learning Photo Aesthetics: Utilized Pandas and Scikit-Learn to analyze and preprocess the AVA database, researched modern classification models, and developed supporting tools in order to develop a novel deep learning model in TensorFlow to classify photo aesthetics.

Heineken® AR Cheers Campaign: Utilized TensorFlow to develop an object detection model and integrated it into an adaptive AR experience for a Heineken promotional campaign.

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.

See blog and more projects at mattstruble.com

Education

Georgia Institute of Technology   Atlanta, GA
Master of Science, Computer Science |
Machine Learning, Computational Perception and Robotics

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