

# Matthew E. Struble

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## Skills

**Languages:** Python, C++, C, SQL, Java, Bash, L<sup>A</sup>T<sub>E</sub>X.

**Packages:** TensorFlow, Keras, OpenCV, NumPy, Scikit-Learn, Pandas, Matplotlib

**Applications:** Jupyter, MATLAB, 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:** An active blog series cataloguing every step I took, from data analysis to model deployment, in development of a novel deep learning model capable of judging 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 BERT, ensemble, and bag of words, in an attempt to understand – and visualize – Americans' views of climate change over time.

See more at [mattstruble.com](http://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