

# William H.S. Angell

MACHINE LEARNING ENGINEER

Detroit, Michigan

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## Summary

Co-founder of AristanderAI, applying deep learning to price optimization and recommendation systems for e-commerce. 5+ years experience in developing machine learning projects across multiple disparate domains, resulting in several publications in neuroscience, linguistics, and computer vision journals. Long-distance running enthusiast that enjoys weightlifting and Michigan winters.

## Work Experience

### AristanderAI

*Berlin, Germany*

CO-FOUNDER / SOFTWARE ENGINEER

*August 2017 - Present*

Started as a hire at Yoshino.digital GmbH, my research and development lead directly to the founding of a new company for dynamic pricing. Created Bayesian multi-arm bandit A/B testing framework. Created large-scale sequence-based recommendation systems. Created price optimization system using deep reinforcement learning. Responsible for all core development, tech strategy, and devops. Hired and managed software engineer for development of e-commerce plugins. Collaborated with front-end team to develop website design. Developed vision, business strategy, marketing materials, and assisted in fundraising (successfully raised 150k Euro).

Technologies: reinforcement learning, deep learning, Python, optimization, time-series data, Docker, AWS, PyTorch

### Massachusetts Institute of Technology

*Cambridge, Massachusetts*

SOFTWARE ENGINEER

*July 2015 - April 2017*

Developed in-vehicle data acquisition system using single-board computers. Optimized drivers for popular CAN bus controllers for high receive message throughput. Formulated and implemented big data processing pipeline and data visualization tools. Created web-app for live-viewing of in-vehicle data streams. Explored automated reverse engineering of network protocols using machine learning. Built real-time computer vision-based bicycle safety system, reaching semifinals of MIT 100K competition. Created forward roadway object recognition and scene parsing models using deep learning. Personally responsible for developing and managing entire data pipeline and backup systems.

Technologies: embedded systems, real-time systems, C/C++, Python, databases, computer vision, deep learning, SLURM/cluster computing

### Massachusetts Institute of Technology

*Cambridge, Massachusetts*

TEACHING ASSISTANT

*January 2017*

Acted as teaching assistant for MIT's Deep Learning for Self-Driving Cars. Created in-browser deep learning demo for students: training highway steering models using ConvNetJS on real video data. Wrote Tensorflow object recognition tutorials for students to use.

Technologies: deep learning, Tensorflow

### Ofen Lab

*Detroit, Michigan*

RESEARCH ASSISTANT

*June 2014 - July 2015*

Implemented a complete fMRI-based language study - programmed experimental protocol and analyzed data in Matlab (whole-brain, ROI, PPI). Developed Unreal Tournament experiment for fMRI-based spatial navigation study.

Technologies: Matlab, Python, MRI

### Ford Motor Company

*Dearborn, Michigan*

INTERN (MES / AI GROUPS)

*May 2013 - August 2013*

Created Stanford Parser/Hadoop/AllegroGraph NLP pipeline for extracting triples from dependency trees. Created social network sentiment analysis tool for mapping emotional trends to Ford campus buildings. Researched and implemented semantic textual similarity models.

Technologies: Python, Hadoop, machine learning, natural language processing

### CollabFeature

*Detroit, Michigan*

WEB DEVELOPER

*August 2012 - May 2013*

Designed web-app for filmmakers to collaborate on projects together. PHP/MySQL/Apache. Used Bootstrap/jQuery/AJAX to create efficient, user-friendly interface. Integrated Vimeo API to allow filmmakers to comment on specific timecodes of film cuts.

Technologies: PHP, MySQL, Javascript

## Education

### Wayne State University

*Detroit, Michigan*

B.S. IN COMPUTER SCIENCE

*August 2011 - June 2015*