



# John Henning

Machine Learning Engineer & AI Researcher



## Experience

08.2020  
- Present

### Technical Lead & Deep Learning Research Engineer

Lightelligence, Inc - Boston, MA

- Technical lead for building out an experimentation platform for deep learning model benchmarking & analysis
  - Comparing results between NVIDIA GPUs and Lightelligence Optical Processing Units (OPUs)
  - Variety of other tools for interdisciplinary teams

• Contributed to development of initial OPU SDK, particularly in API design and refactoring

• Conducted feasibility studies of different model architectures for deployment onto OPUs

05.2019  
- 07.2020

### Staff Deep Learning and Computer Vision Research Engineer

IBM Research - Cambridge, MA

• Promoted to Lead Engineer and Architect of IBM's end to end activity detection system for the **DIVA** project

- <https://www.iarpa.gov/index.php/research-programs/diva>

• Developing a machine learning and data-driven system framework for modularizing pipelines into components to allow for more flexibility

- <https://github.com/frater-sdk/frater>

• Published research in continual learning for object detection models to allow for incrementally learning new object classes.

- Published at CVPR 2020 Continual Learning Workshop

- <https://bit.ly/2ZcEGNP>

08.2018 -  
05.2019

### Deep Learning and Computer Vision Research Engineer

IBM Research - Cambridge, MA

• Trained and tested activity detection models for spatially and temporally localizing and recognizing activities in surveillance video for the **IARPA DIVA** program

• Collaborated with researchers from MIT and Purdue University to build a state of the art activity detection system and publish papers to conferences

• Designed and developed an end to end activity detection system for running in a live environment

• First place in the **TRECVID Activity in Extended Video competition**

• Second place overall in **DIVA 1B evaluations**



## Education

08.2015 -  
05.2018

### University of Florida - Computer Science, Mathematics

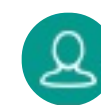
#### Bachelor of Science

• Graduated with Honors

• Undergraduate Research Assistant in the Computational Neuro-Engineering Lab

• President and Founder of AI club

• Active in Student Hackathon community



## Personal Info

**E-mail:** john.henning@hey.com

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**Twitter:** @johnlhenning



## Skills

Programming - Clean code, Design Patterns, OOP



Deep Learning - PyTorch, Keras, Tensorflow



Computer Vision - Activity Detection, Object Detection, Image

Classification, GANs



Systems - Design, Architecture,

Distributed Systems



DevOps - Docker, git, CI/CD



Natural Language Processing - Transformers, Sentiment Analysis, Neural Machine Translation



## Languages

Python



Go



C++



Javascript -



Java

