

Summary

Statistical learning researcher with theoretical focus and software skill to implement novel algorithms. Passionate about open source, reproducible AI/ML research. Topics of interest include Bayesian inference, statistical signal processing, reinforcement learning, and optimization.

Education

- 2013–Present **Doctor of Philosophy**, *The George Washington University*, Washington, D.C.
Electrical Engineering, *GPA – 4.0*
- 2010–2011 **Master of Engineering**, *Cornell University*, Ithaca, N.Y.
Electrical and Computer Engineering, *GPA – 3.6, Cum Laude*
- 2006–2010 **Bachelor of Science**, *Cornell University*, Ithaca, N.Y.
Electrical and Computer Engineering, *GPA – 3.0*, Minor in Engineering Management

Experience

Vocational

- 2022–Present **Electronics Engineer**, *U.S. Naval Research Laboratory*, Washington, D.C.
Navy Center for Applied Research in Artificial Intelligence
- Designed supervised/reinforcement learning algorithms and Python software packages for cognitive resource management
 - Researched novel Bayesian learning functions to enable consistent model estimation with maximally flexible regularization
- 2011–2022 **Electronics Engineer**, *U.S. Naval Research Laboratory*, Washington, D.C.
Radar Division, Advanced Signal Processing Section
- Generalized the Viterbi algorithm for Markov processes of any order, developed a computationally efficient implementation
 - Used deep learning to implement sequential classifiers for speech recognition using reflected radar transmissions
 - Developed automatic target identification software, including feature extractors and ensemble decision functions
- 2009 **Engineering Intern**, *Northrop Grumman Corporation*, Melville, N.Y.
Wrote MATLAB programs to perform pulse-Doppler analysis of corrupted test data and automate repairs

Computer skills

- Programming Python, MATLAB
- Development Git, \LaTeX
- Libraries PyTorch, Tensorflow, Gym, Scikit-Learn, Numpy, SciPy, Pandas

Distinctions

- Recipient of George Washington University High Academic Performance Award
- Recipient of Cornell University John McMullen Dean's Scholarship
- Recipient of National Merit Scholarship from Northrop Grumman Corporation