

<b>Work</b>	<b>Iris Automation</b> · Senior Deep Learning Engineer	2017 →
	<ul style="list-style-type: none"><li>- Research and deploy novel machine learning algorithms for detection, tracking, and pose/distance estimation of distant dynamic objects from onboard a drone.</li><li>- Investigated enhancing simulator realism with GANs to supplement real data.</li><li>- Lead the data validation team with 5 direct reports.</li><li>- Developed low-maintenance machine-learning-enhanced software that annotates and validates videos at costs below those of external annotation providers.</li><li>- Developed and deployed the production flight-data system to accelerate reproducible research by providing data consistency, video caching, and APIs.</li></ul>	
	<b>Nvidia</b> · Deep Learning R&D Engineer (Autonomous Driving)	2016 → 2017
	<ul style="list-style-type: none"><li>- Responsible for the team's petabyte-scale data and cloud training efforts.</li><li>- Researched neural network visualization, fine-tuning, and dataset balancing.</li><li>- Increased data labeling rates 4x through UX, process, and software optimization.</li><li>- Trained models and mitigated risks for demos, including live at CES 2017.</li></ul>	
	<b>HPTi</b> · High Performance Computing Engineer	2010 → 2013
	<ul style="list-style-type: none"><li>- Assisted climate modeling efforts through software development, system anomaly detection, and software support for three super-computing sites for NOAA GFDL.</li><li>- Initially on contract to create technical requirements for a new VA IAM system, including some C# development.</li></ul>	
<b>Part-Time</b>	<b>University of Vermont</b> · Graduate Teaching Assistant	2013 → 2015
<b>Tech Work</b>	<b>Lehigh University IMRC</b> · Full-Stack Developer & System Admin	2007 → 2010
<b>Education</b>	<b>University of Vermont</b> · M.S. Computer Science, <a href="#">G.C. Complex Systems</a>	2015
	<ul style="list-style-type: none"><li>- <a href="#">Research Thesis</a> investigated using proprioception-aware limbs to improve how quickly and robustly a simulated robot could make sense of its eyesight.</li></ul>	
	<b>Lehigh University</b> · B.S. Computer Science & Business	2010
	<ul style="list-style-type: none"><li>- Summer internship with PwC in Budapest testing a new auditing language.</li><li>- Senior Project with WWBG in Ghana developed a cell phone-based website and statistical model to expand microfinance loans for entrepreneurial women.</li></ul>	
	<b>Udacity</b> · <a href="#">Flying Car Nanodegree</a>	2018
<b>Research</b>	<a href="#">VisualBackProp: visualizing CNNs for autonomous driving</a>	ICRA 2018
	<a href="#">End to End Learning for Self-Driving Cars</a>	2016
	<a href="#">An Embodied Approach to Evolving Robust Visual Classifiers</a>	GECCO 2015
	<a href="#">Evolved Spacecraft Trajectories for Low Earth Orbit</a>	GECCO 2014

<b>Selected Projects</b>	<a href="#">OfficePong</a> : A website for tracking office Table Tennis ELO	2018
	<a href="#">Derp Learning</a> : A 1/10-scale autonomous RC car for track racing	2017
	<a href="#">Banjin</a> : A Bananagrams AI with a computer vision solver	2015

**Recent Skills**

**Programming Languages** Python, C++, Bash, SQL, Javascript

**Tools** AWS, CUDA, Docker, Flask, OpenCV, Postgres, PyTorch, QT, Tensorflow

**Research Interests** Machine Learning, Simulation-Reality Gap, Computer Vision, Multi-agent Systems, Evolutionary Robotics, Self-Organization