

Summary	At my current role I design, implement, and deploy machine learning systems to solve difficult problems. I am a lead author on four published patents that relate to deep learning for anomaly detection. I have designed and implemented custom machine learning solutions for clients that have included DARPA and Fortune 100 companies. My experience also includes applying machine learning to financial, sports, genetic, and infectious disease data.	
Experience	Machine Learning Engineer Chiral Software, Los Angeles, CA (Remote via Seattle, WA)	September 2016 - Present
	<ul style="list-style-type: none">• Lead author on a four published deep learning patents relating to computer vision and anomaly detection.• Created end-to-end deep learning pipelines that include data processing, training, live deployment, and backend sever components.• Designed, developed, and implemented real-time video anomaly detection systems.• Created machine learning software for a project that won funding from the US Defense Advanced Research Projects Agency (DARPA).• Presented a live demo at the ISDEF international conference overseas. This resulted in acquiring one of our main clients.	
	<i>Technologies:</i> <ul style="list-style-type: none">• Convolutional networks, convolutional autoencoders, unsupervised clustering, anomaly detection, Tensorflow, Keras, Pandas, Mongo, SQL, Docker, Darknet, Python, ZMQ, Matplotlib.	
	Undergraduate Researcher Hutchinson Machine Learning Research Lab, Western Washington University, Bellingham, WA	September 2015 - July 2016
	<ul style="list-style-type: none">• Designed and implemented custom deep and recurrent neural network architectures to model sports data.• Created a custom LSTM cell state initialization solution to better model individual teams.• Built a data-processing pipeline that interfaces with a database and normalizes or embeds features appropriately.• Created custom models with convolutional, LSTM, and deep neural network architectures.• Wrote code to parse and format datasets into SQL databases.• Visualized and presented statistical discoveries.	
	<i>Technologies:</i> <ul style="list-style-type: none">• Tensorflow, recurrent neural networks, LSTM networks, SQL, Python, Matplotlib.	
	Research Lab Assistant Rose Neuroscience Lab, Western Washington University, Bellingham, WA	July 2013 - September 2014
	<ul style="list-style-type: none">• Wrote a program in Java to automate a common microscope imaging task. This reduced task time from around forty minutes to near instantaneous.	
Education	<i>Bachelor of Science, Computer Science</i> Western Washington University, Bellingham, WA, June 2016	
Distinctions	<i>Outstanding Poster of the Undergraduate Scholars Showcase Poster Competition</i> Jake Moorhead, Josh Osborne, Michael Remington, Sam Kaplan and Brian Hutchinson. <i>Play-By-Play Sports Modeling with Deep and Recurrent Neural Networks</i> . 2016	