

Palo Alto, CA

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Education

Doctorate of Philosophy - Physics Graduate Minor - Business Administration

The University of Nevada, Reno Aug. 2016

The University of Nevada, Reno June 2014

Bachelor of Science - Physics

The University of California, Santa Barbara June 2010

Experience ____

Mythic Inc. Redwood City, CA

DEEP LEARNING SCIENTIEST

Mar. 2018 - Present

• Leading rapid-prototyping projects to explore real-world application of cutting-edge deep learning solutions in computer vision

Insight Data Science Palo Alto, CA **TECHNICAL ADVISOR** Mar. 2018 - Present

• Providing mentorship for research and engineering projects across a variety of applications in the deep learning space

- Computer vision
- Generative Adveserial Networks
- Deep Reinforcment Learning

ARTIFICIAL INTELLIGENCE FELLOW

Jan. 2018 - Mar. 2018

- · Consulted for Harvesting Inc., focused on leveraging AI and remote-sensing to assist farmers in rural areas and developing countries
- · Engineered and implemented a deep neural network for object detection and identification in high-resolution satellite images
- · Applied techniques in transfer learning and data augmentation to achieve high-accuracy in performance despite limited data

Institute for Shock Physics

Pullman, WA

POSTDOCTORAL RESEARCHER - WARM DENSE MATTER GROUP

Oct. 2016 - Jan. 2018

- Worked with a small team to develop a high-intensity laser system for a first-of-its-kind research facility
- Spearheaded research efforts encompassing multiple engineering disciplines: electrical engineering, mechanical engineering, chemistry, and computer programming
- Developed routines using Python for error analysis, interfacing with commercially-available software, and image processing to streamline the work of colleagues

Nevada Terawatt Facility

Reno. NV

GRADUATE RESEARCHER - PULSED POWER GROUP

Aug. 2011 - Sep. 2016

- Organized interdisciplinary teams (~5 people) on a biannual basis to complete short-term (~2 week), high-value (>\$30,000), projects to support the interests of the Department of Energy and National Nuclear Security Agency
- Built and fielded highly-technical diagnostic systems (optical, X-ray, and nuclear) to explore fundamental guestions in high-energydensity physics
- Performed physics simulations, using massively-parallel computing platforms, to analyze and interpret experimental results

Lawrence Livermore National Laboratory

Livermore, CA

BACHELOR LEVEL SCIENTIST & STUDENT INTERN - PHYSICS AND ADVANCED TECHNOLOGIES

June 2007 - July 2011

- · Designed and built scientific equipment and diagnostic systems used at Lawrence Livermore National Laboratory, Argonne National Laboratory ratory, and the Stanford Linear Accelerator
- Performed experiments studying materials under high-pressure (> 1 Million Atmospheres), resulting in several high-impact publications

Skills

Scientific expertise High-energy-density experimental physics - matter under extreme conditions

Languages Python (10+ years), Yorick (5 years), and C++ (2 years)

iOS & web development Django, Swift, HTML, CSS, and Javascript

Machine learning TensorFlow, Keras, and Scikit-learn

Best Practices PEP8, test driven development, Travis CI, Docker, version control (git)

Rapid-prototyping & design Machining, welding, CAD, and analog/digital circuit design