

"Be the change that you want to see in the world."

Education

Drexel University Philadelphia, PA

M.S. IN PHYSICS

Sep. 2011 - Dec. 2014

· Computational Quantum Mechanics

Baylor University

Waco, TX

B.S. IN PHYSICS, MINOR IN MATHEMATICS

Sep. 2007 - May. 2011

Feb. 2017 - May 2018

Skills_

Languages Python, R, Julia, Matlab, SQL, Scala, LaTeX

DevOps AWS, Docker, Kubernetes, Ansible, Jenkins, Vagrant, Jenkins, Argo, Airflow **Frameworks** Scikit Learn, Tensorflow, Keras, Pandas, Dask, SpaCy, Tidyverse, Spark

Back-end PostgreSQL, MongoDB, Django, Flask, REST API,

Experience _____

DATA SCIENTIST

Centene St. Louis, MO

LEAD DATA SCIENTIST

Jun. 2019 - PRESENT

- Data Science project lead over the NextGen and population health data science applications.
- Lead a mixed team of seven data scientists and data engineers responsible for developing and propagating new technologies and capabilities within the company.
- Responsible for project planning and coordination with diverse stakeholders across the organization.
- · Project architect for internal machine learning deployment and maintenance framework.
- Pioneered the notion of a "Full Stack" data science team within Centene that owned the full application delivery lifecycle from ideation to deployment.
- Technical lead and mentorship for junior data scientists and engineers.

CiBO Technologies St. Louis, MO

LEAD DATA SCIENTIST May 2019 - May 2019

- · Lead a team of data scientists developing smart tooling around data validation and ingestion of incoming messy data.
- Developed and implemented fluid flow models of rainfall distribution across varied geographies.
- Developed and implemented custom software to provide sophisticated light scattering corrections to leaf area index calcuations.
- Worked on unsupervised clustering with metric learning capabilities to drive field level environmental classification.

Monsanto St. Louis, MO

Built and deployed customer demand and behavior forecasting models via GLM and tree based approaches.

- Developed generalized customer segmentation models using K-means clustering with side information.
- Oversaw development and deployment of key customer analytics business metrics driving company wide sales strategies.

Better Weekdays St. Louis, MO

SENIOR DATA SCIENTIST May 2016 - Feb. 2017

- Lead a mixed team of data scientists and data engineers to develop crucial early stage company analytics capabilities.
- Built out early stage BI and analytics capabilities in Metabase.
- · Lead the implementation of companies first data warehouse leveraging RabbitMQ, Django, and a custom built stream processing library.
- · Deployed customized Lucene based recommendation systems to support core job recommendation functionality.
- · Deployed Bayesian Multi-Armed Bandit recommender systems to provide job recommendation capabilities tailored to user preferences.

Bellhops Chattanooga, TN

LEAD DATA SCIENTIST Dec. 2014 - May. 2016

- Lead a mixed team of data scientists and data engineers to develop crucial early stage company analytics capabilities.
- Responsible for analytical work leading to successful close of \$13.5 million series B funding round.
- Built out early stage BI and analytics capabilities in Chartio.
- · Lead the implementation of companies first data warehouse leveraging AWS, Airflow, and SQLAlchemy.
- Developed and deployed demand forecasting models across all company market segments.
- · Oversaw development of early stage machine learning capabilities leveraging NLP, alongside other traditional ML components.

Drexel University

Philadelphia, PA

DOCTORAL CANDIDATE (ABD)

Sep. 2011 - Dev. 2014

Jun. 2012 - Dev. 2012

- Developed computational finite element techniques to model Schroedingers Equation on arbitrary two dimensional geometries with special interest in the geometric pseudo potential on bound particles.
- Developed performant finite element system implemented (Matlab) with GPU parallelization in CUDA.
- Molecular dynamic & conformational analysis of AB-42 protein folding and it's role in Alzheimer's formation.
- · Teaching undergraduate physics for engineers.

Helmholtz Zentrum Berlin, Germany

Berlin, Germany

Research Assistant

- Designed & instrumented custom hall sensor array for field characterization in ultra-high magnetic field, cryogenic environments.
- Wrote custom instrumentation software (Borland Delphi).
- Experimental apparatus design in 3D CAD (Solidworks).

Ope	n S	ource	e Pro	jects
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Visions

AN OPEN SOURCE LIBRARY FOR SEMANTIC DATA.

Publications

JOURNAL ARTICLES

CONFERENCE PROCEEDINGS