

Jonathan Wen

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Experience

Focal Systems

Millbrae, CA

Software Engineer / Data Scientist

Jan 2017

- Designed a distributed micro-services framework to run GPU based machine learning models using Docker Swarm and Celery; **improved performance by 200%**
- Created low latency deep learning algorithms using deep convolutional neural networks, hidden Markov models, and K-nearest neighbors, **achieved accuracy of 96%**
- Developed automated ETL pipelines feeding into real-time heat map for analysis of millions of images

DataESP

Waterloo, ON

Data Scientist / Web Developer

May 2016

- Researched and developed machine learning algorithms in Spark to diversify item recommendations
- Implemented a scalable system architecture to transform large datasets using Pandas and Flask
- Parallelized critical tasks using Hadoop and MapReduce jobs to boost performance of learning algorithms
- Created interactive data visualization tools for clustering millions of data points with D3 and Angular

University of Waterloo

Waterloo, ON

Undergraduate Research Assistant

Jan 2016

- Researched quantitative ultrasound segmentation methods for detecting tumors using binary descriptors
- Generated contours for ground truth images and ingested into segmentation algorithm, used to predict region of tumor for any image

Indochino

Vancouver, BC

Full Stack Engineering Intern

Sept 2015

- Optimized webpage performance by reducing Memcached calls and using SQL Views, decreasing homepage load time by **upwards of 300%**
- Implemented low latency data access tools using PHP and MySQL following MVC architecture
- Improved alterations interface to update customer measurements dynamically, **saving \$1000s/store**

Klick Health

Toronto, ON

Front End Web Developer

Jan 2015

- Developed QuickSearch feature using Mithril, allowing thousands of items to be searched simultaneously
- Created dynamic Leaderboard and kiosk page in ReactJS for conference with 11,000 attendees

Projects

Handwritten Recognized MNIST handwritten numbers using neural networks, achieved over 96% accuracy

Cityouth app Enables attendees to text questions during a conference and receive answers using Mongo and Node

Skills

Languages Python · Scala · C++ · SQL · JavaScript · Bash

Technologies Flask · Spark · Hadoop · AWS · Scikit-learn · Tensorflow

Education

3A Systems Design Engineering

Cumulative average: 84%

Courses: Data Structure and Algorithms, Digital Computation, Convolutional Neural Networks (Stanford)

Interests: Machine Learning, Distributed Systems, Big Data, Photography, Guitar, Traveling (not in basketball)