CLAY A. O'NEIL

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SUMMARY

Machine Learning engineer with strong background in NLP and Deep Learning. Experience developing state of the art, highly scalable algorithms and data pipelines. Competitive, results driven, enjoy working with a team as well as independently.

TECHNICAL PROFICIENCIES

Languages: Python, Java, JavaScript, Bash, C, C++, Matlab, Swift
Frameworks: Tensorflow, Tensorflowjs, Pytorch, Spring, Nodejs
Concepts: Deep Learning, NLP, Computer Vision
Tools: Docker, Kubernetes, Pandas, Scikit-Learn, Numpy, Tomcat, Git

EXPERIENCE

Machine Learning Engineer, Best Buy, Richfield, MN **Dec 2018 - Current**

- Implemented deep learning, NLP algorithm in Tensorflow to classify user search queries with ~97% accuracy
- Served classification algorithm in a NodeJS application utilizing TensorflowJS
- Trained Tensorflow model in Google Cloud leveraging distributed architecture to train on massive amounts of data
- Engineered datasets from Google BigQuery to fit our training needs
- My team and I built a caching service for searches to meet demands of a production environment. The service is a Java application with a Cassandra, Kafka, Memcached stack

Associate Software Engineer, Best Buy, Richfield, MN **May 2017 - Dec 2018**

- Full Stack developer working on User Generated Content section of bestbuy.com
- Migrated entire backend stack (Oracle, Solr, RabbitMQ, Domain Service) to cloud based micro services
- Redesigned and implemented database migration from Oracle to Cassandra

Researcher, Polar Geospatial Center, UMN **May 2017 - Feb 2018**

- Implemented deep learning algorithm in Tensorflow to count seals in Antarctic satellite imagery
- Working through a Nation Science Foundation grant with one teammate
- Created image recognition software to highlight tide cracks in Antarctic satellite imagery

Software Engineer Intern, Cray inc., St. Paul, Minnesota **May 2016 - August 2016**

- Developed time series data-agnostic visualization tool to simplify error checking and validation of data on the Cray Systems
- Gained valuable experience with parallel and distributed computing

iOS Engineer, Wandr LLC, Minneapolis, Minnesota (Start-up) **April 2015 - May 2016**

- Developed event rating algorithm central to Wandr's functionality
- Implemented creative user experiences, fully integrated with back end data and services
- Integrated authentication with the app as well as text message verification

EDUCATION

Sept 2014 - May 2017

Bachelor of Science degree in Computer Science
Minor: Mathematics
University of Minnesota, Minneapolis, Minnesota

PROJECTS

Sequence-to-Sequence neural network (deep learning, NLP)
I wrote an attention based encoder-decoder that learns a high level representation of the style of a text corpus, and then generates similar text on its own. I implemented it in Pytorch and followed the paper Effective Approaches to Attention-based Neural Machine Translation (Luong et al., 2015a).