

NIDHIN PATTANIYIL

MACHINE LEARNING ENGINEER

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Skills

MACHINE LEARNING

Pandas
Scikit-learn
Apache Spark
Keras
TensorFlow
Pytorch
fastai

DEVOPS

Ansible
Terraform
Docker
Kubernetes

WEB/MOBILE FRAMEWORKS

Flask
React
Expo
React Native

LANGUAGES

Python
SQL
TypeScript / JavaScript
Java

DATABASE

Cassandra
Elasticsearch
Google Big Query
MySQL

Employment

Machine Learning Engineer in Search · Walmart

Hoboken, NJ
Aug. 2019 to Current

- Improved Search Precision by 1% by training NLP and vision classification models on user engagement data
- Improved ATC and NDCG of facets and filters by using engagement data and word embeddings
- Build ML production platform to scalably run model inference ; reducing cost by 40%; Deployed 7 machine learning models
- Evangelized adoption of Google Cloud Technologies (Bigquery, Dataproc, GKE, DataStudio)
- **in-progress**: exploring Runtime GPU Acceleration of models
- **in-progress**: exploring new modules and models to guide reformulation of queries
- **in-progress**: Exploring incorporating in-session contextual ranking

Machine Learning Engineer · Ableto

New York, NY
Nov. 2017 to Aug. 2019

Data

- Built classification and clustering machine Learning models to identify patients who are silent sufferers
- Spearheaded migrating ETL pipelines from Luigi to Airflow / Spark
- Trained Medical Word Embeddings to understand medical lingua (gensim, word2vec)
- Founded company's data science Lunch and Learn sessions

MIOps

- Migrated infrastructure to Docker and Kubernetes
- Modernized our Continuous Integration
- Contributed to the migration of monolith services to event driven architecture

Software Engineer, Machine Learning · GONG

New York, NY
Jan. 2016 to Oct. 2017

Machine Learning

- Built a notification systems that identified trending stories
- Built Machine Learning models to cluster News Articles , dedupe stories and recommend stories (Doc2Vec, DBSCAN, TF-IDF)

Data Engineering

- Built analytics and reporting infrastructure (Mixpanel, Google analytics, PubSub, BigQuery, Airflow)
- Developed A/B Testing frameworks for web (Goole Optimize) and email

Backend

- Migrated infrastructure from AWS to Google Cloud (saving 80% monthly expenses)
- Standardized deployment of services using Google Container Engine (Kubernetes) and Docker
- Build micro-services in Python Flask and Scala Play Framework

Frontend

- Build the first version of company's web app in Angular 1
- Migrated company's site from Angular 1 to React improving SEO and loading time
- Contributed to the development of mobile app (React Native)

Researcher Assistant · Rochester Institute of Technology

Rochester, NY
Jan. 2014 to May 2014

- Worked on projects for the Document Pattern Recognition Research Lab
- Architected a search engine for math research papers from the Wikipedia and arXiv collection; system based on Tf-IDF for text scoring and custom Symbol Layout tree for math scoring
- Entered our designed system in the NTCIR-11 international conference; system placed in the top 3

Projects

Manning LiveProject: Deploying a Deep Learning Model on Web and Mobile Applications July 2020 to Dec. 2020
Worked with Manning Publications to create a hands on course on building machine learning models for Mobile

Combining TF-IDF Text Retrieval with an Inverted Index over Symbol Pairs in Math Expressions 2014
Build a distributed search engine for math research papers.
Proc. 11th NII Testbeds and Community for Information access Research (NTCIR), Tokyo, Japan

Volunteering

Udacity · NLP and Deep Learning Mentor Mar. 2019 to Dec. 2019
Collaborated with peer mentors to assist students with Udacity projects and deepen their understanding of NLP and deep learning .
Review student projects, giving valuable feedback for them to meet specifications.

Data Science Hackathon host June 2016 to Nov. 2016
Worked with team at Correlation One to host a data hackathon for students at NYU
Researched datasets and prepared challenges
Mentored participants with technical issues

Education

Rochester Institute of Technology
BS/MS Computer Science 2014

Natural Language Processing (Udacity)

Computer Vision Nanodegree (Udacity)