TALAL AL QADI

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<u>Languages</u>: Python, R, NoSQL, C#

Frameworks & Tools: AWS Cloud, Tensorflow, Spacy, Regex, Git, Docker, ELK Stack

WORK EXPERIENCE

Involve AI, Santa Monica, CA

Dec. 2021 – Present

Head of AI

- ❖ Initiated and executed a comprehensive refactor of back-end code used by Machine Learning and Python engineers into a single package, accelerating dashboard delivery from a minimum of 2 days to just 1 hour. Employed state-of-the-art methods to expedite the entire pipeline and documented all processes to facilitate maintenance and future improvements.
- ❖ Led performance tracking and improvements for NLP and Regression Models; boosted NER model's F1 validation score by 50% and reduced false negatives by 2x through hyperparameter tuning and custom pre-processing methods.
- * Cut computing, training, and labeling costs by 70% by creating a generalized NER model across multiple domains, eliminating the need for custom trained models.
- * Built an automated auto-train pipeline that performed continuous inference on new data, triggered labeling for data drift and low model confidence, and facilitated iterative model training and deployment.
- Developed and deployed a containerized FastAPI application on AWS Fargate using Docker for an LLM model, enabling secure internet query capability. Utilized AWS CloudFormation for programmatic creation and reusability.
- * Streamlined developer workflow, reducing workload by 7 hours per engineer per week, by implementing an automated metric tracking system using Airflow and Google Sheets' API.
- * Enhanced the performance of the in-house regression model by 30% across all datasets, through a custom imputation method for a null-safe pipeline.
- Optimized data analysis and presentation process, reducing lead-time from 7 days to 3 days, by creating a reusable template and end-to-end process guide for other data scientists.

Qualomics Inc., San Diego, CA

Feb. 2019 – Oct. 2020

Data Analyst

Implemented an online searchable and interactive dashboard using Elasticsearch, Kibana, and Logstash.

- * Created a dockerized pipeline that extracts and aggregates data from various FDA medical device databases.
- Parsed PDF text files using Tika, and implemented regex patterns to extract data to improve the existing databases.

Machine Learning for Social Sciences Lab at UCSD, La Jolla, CA

Jul. 2019 - Sep. 2020

Research Assistant

Conducted a wide range of tasks including data entry, web scraping, paper or package replications, and literature review. Co-author on 2 upcoming publications.

- Worked on NESSDate, a multilingual and cross-domain LSTM network tasked with tagging and normalizing temporal expressions.
- Scraped petabytes of data from the common crawl, parallelized by launching multiple AWS EC2 instances.
- * Replicated state-of-the-art temporal extractors and normalizers (HeidelTime, SUTime, ..).

EDUCATION AND SKILLS

GEORGIA INSTITUTE OF TECHNOLOGY, Atlanta, Georgia

2021-2023

M.S in Computer Science with Specialization in Machine Learning

UNIVERSITY OF CALIFORNIA, SAN DIEGO, La Jolla, CA

2016-2020

B.S. Cognitive Science with Spec. in Machine Learning and Neural Computation; Minor in Mathematics