SHIVANG SINGH

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EDUCATION

Master of Computer Science, University of Texas at Austin — Expected 2022

- Integrated 5 year MS/BS program, Current GPA: 3.81/4.00, Graduate Teaching Assistant for NLP
- Relevant Coursework: Neural Networks, Artificial Intelligence, Wireless Networks

Bachelor of Computer Science, University of Texas at Austin — 2017 - 2020

SKILLS

Proficient Java, Python, Pytorch, Scala, HTML, Javascript, React.js, Angular.js, C, Tensorflow, Kafka
Developing MongoDB, C++, MySQL, Bash, Git, CUDA

EXPERIENCE

Data Science Intern — Summer 2021
Cloudflare, Data Science Team — *Austin, TX*

- Enhanced the data processing pipeline by developing a Spark ETL job to load product usage data from various sources into BigQuery (GCP data store) and then designed feature transformations (SQL queries) to feed into a account scoring model used to score customer adoption
- Developed time series revenue forecasting models for Cloudflare's PayGo customers, improving accuracy over baseline approaches leverging machine learning models such as ARIMA and LSTM
- Integrated the insights of the two models into internal facing dashboard by building visualizations using React.js, enabling key decision makers to make relevant decisions regarding customer relations as well as budgeting

Software Engineering Intern — Summer 2019,2020
VISA, Data Science and AI Team — *Austin, TX*

- Integrated streaming to Visa's Real Time Payment project using Apache Kafka and Apache Druid as a low latency querying interface to fetch simulated real time streaming data.
- Enhanced Python based Tensorflow ML models through feature engineering on time series streaming data
- Improved current data visualization capabilities of Big Data stored in Hadoop file system by designing dashboard using Angular.js (front end), Java Spring (back end), and Scala and Spark SQL for ETL functionalities
- Configured a proof of concept model in which users are allowed to specify their query in the form of a prose sentence and generated a sample SQL query, using NLP context parsing

Software Engineering Intern — Summer 2018
Home Depot, Infrastructure Team — *Austin, TX*

- Installed and configured the cloud based backup/restore product onto Linux and Windows based virtual machines using VMware's Python library and used Puppet orchestrator to configure backup/restores onto physical servers
- Developed a Python Flask (backend) and Javascript (front end) web application (backup as a service/BaaS) to give application teams access to functionalities, such as adhoc backups, file level restores, and retention policies

PROJECTS

Text Based Adversarial Examples For Multimodal Tasks (https://tinyurl.com/2021-LXMERT) — 2020

- Research project in which we developed an algorithm to generate text based adversarial examples for multimodal tasks such as Visual Question Answering by leveraging pretrained joint image and language transformers to generate examples that could fool a multimodal model yet conserve the original visiolinguistic meaning.

Approximating Transfer Learning for Language Models (tinyurl.com/Shivang-EMNLP2020) — 2020

- Research project in which we developed a finetuning method for language modeling, which used the relative unigram distributions between the source and target corpus to fine tune a language model in linear time. Submitted to Research Conference EMNLP (Empirical Methods in Natural Language Processing) 2020.

AWARDS

Texas Microsoft DataHack - 2nd of 18 teams — 2019

Texas State University Best Scientific Writing Award — 2017