SADIQ
QUASEM

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EXPERIENCE

Data Scientist | Tealium | March 2019 – Present

- Lead machine learning efforts, part of team that took Predict from concept to release in under 12 months
  - Predict allows customers to choose any target variable in their data layer to infer future visitor behavior like 'Likelihood to convert', 'Purchase amount', etc., in a specified time span
- Create flexible ETL pipelines on AWS Glue using Apache Spark to perform processing on petabytes of data
  - Scalable queries that samples, balances, preprocesses data for ingestion into training framework
  - Algorithm that generates target health using statistical inference before training to reduce AWS costs
- Implement Dockerized machine learning engine on AWS Fargate across customers for rapid deployment
  - Uses CatBoost algorithm to build robust models on high dimensional and imbalanced datasets
  - Performs automated feature engineering using deep feature synthesis with Featuretools
  - Generates and sends advanced metrics for trained models to API Gateway for frontend visualization
- Creator and maintainer of Python stack that includes various modules and libraries used in production
  - Includes APIs that are serving millions of user predictions daily for increasing amount of customers
- Help DevOps team build CI/CD on AWS Codebuild and Code Climate to test ML pipeline end to end
- Drive machine learning architecture, product, design and code reviews with cross functional teams

Data Scientist | GE Digtal | June 2017 – Aug 2018

- Productionized scalable machine learning applications for industrial use cases for GE business units
- Created orchestrator for custom machine learning model deployment on edge devices using Predix
  - Used Docker Swarm to deploy and manage/update applications to containers at scale
  - Serve on–time + on–premise predictions through Docker container-based applications
  - Conceptualized model retraining automation using model decay delta with continuous integration
- Built pipeline to convert Keras models to TensorFlow Lite models through transfer learning on AWS
  - Built neural network using transfer learning to detect wind turbine faults with ~85% accuracy
  - Optimized model resource usage and prediction pipeline to work on IoT devices using Docker
- Liaison between Wise.io + Predix Edge teams' collaboration on machine learning on edge devices project
- Advocate and enable internal/external teams' adoption of machine learning to drive business value

Business Analyst | Gojo Industries | May 2016 – Sep 2016

- Performed Extract, Transform and Load (ETL) operations on data generated from millions of IoT devices
- Wrote complex SQL queries for visualizations on Microsoft Power BI to provide actionable insights
  - Designed dashboards for multiple business intelligence use cases to increase compliance rates
  - Found key performance indicators (KPI) for customers to maximize revenue of GOJO products
- Collaborated with stakeholders to define roadmaps for dashboard development for Smartlink ecosystem
- Created Amazon Alexa skills for voice use of Smartlink on Echo for hands free use in clinical settings

Software Engineer |Digital Air Strike | May 2015 – Aug 2015

- Prototyped iOS mobile app for social media engagement with seamless integration with CRM database
- Scripted web scraping algorithm with Mozenda to automate aggregation of online special offers
- Researched and developed new verticals entry strategies for DAS products for the Executive Team

Software Engineer | BMW | Jan 2015 – May 2015

- Created NLP algorithm using scikit-learn to perform sentiment analysis and identify key metrics
  - Use Voice of Customer surveys to influence better manufacturing decisions for future models
- Improved computer vision application for Google Glass used for production line quality control
  - Conducted user research and A/B tests at production facility to gather firsthand user insights
  - Updated voice recognition features for Google Glass for different accents and lingo

Quality Assurance Engineer | Siemens | Aug 2013 – Aug 2014

- Created NX Performance suite consisting of continuous integration tests and benchmarking
  - Analyzed benchmarking for past versions against newest release for improvements
- Managed creation of hotfixes/patches from customer feedback through product release lifecycle

SKILLS

- Python - SQL - Docker - Scikit-learn - Git - A/B Testing
- Apache Spark - Java - AWS - TensorFlow/PyTorch - CI/CD - Jira

EDUCATION

MS in Information Systems and Data Science| CSU – Fullerton | Jan 2017 – Dec 2018

- **Capstone Project | Aug 2018 – Dec 2018**
  End to end machine learning pipeline that uses Naïve Bayes and Random Forest classifiers built from scratch (w/o using libraries) to predict and serve San Francisco Crime types using historical data

BS in Computer Engineering | University of Cincinnati | Sep 2011 – Dec 2016

- Minor in Computer Science, Global Scholarship Recipient
- **Senior Design Project | Aug 2015 – May 2016 | Published by IEEE Cluster 2016**
  Open source random projection hashing algorithm in Golang, which provides high performance clustering of big data, in distributed and parallel computing architectures

CERTIFICATES

Certificate in Big Data Analytics using Spark | UC – San Diego | Dec 2019 – April 2020

- Advanced certificate in using Spark/PySpark for big data processing and machine learning
  - Use large scale data analysis frameworks such as Spark, XGBoost and TensorFlow
  - Learn underlying computer architecture and the programming abstractions
  - Combine methods from statistics and machine learning to perform large scale analysis
  - Identify statistically significant pattern and visualize statistical summaries
  - Topics covered include memory hierarchy, dataframes and SQL, PCA, K-means and intrinsic dimensions, decision trees, boosting, and random forests, neural Networks and TensorFlow

Nanodegree in Deep Learning | Udacity | July 2019 – Oct 2019

- Advanced deep learning certification course in collaboration with Facebook and AWS
  - Create neural networks from scratch and implement them using deep learning framework PyTorch
  - Build convolutional networks for image recognition for various projects
  - Recurrent networks for sequence generation, used to write movie scripts and recognize past patterns
  - Generative adversarial networks for image and video generation using samples to create new content
  - How to productionize and deploy deep learning models accessible from a website or API

ADDITIONAL EXPERIENCE

Technology Specialist | Disability Support Services, CSU – Fullerton | Jan 2018 – May 2018

- Customized software to empower and enable education for various types of students with disabilities
- Responsible for accessible technology used to support functional capabilities of students with disabilities

Student Fundraiser | Titan Fund, CSU – Fullerton | Jan 2017 – Dec 2017

- Raised funds for scholarships and grants across university orgs through calling and events
- Organized fundraising events in campus and externally to drive alumni engagement and donations

Academic Mentor | Athletics Academic Services, CSU – Fullerton | Jan 2017 – May 2017

- Mentored student athletes who are underperforming academically to hit goals for scholarships
- Help student athletes with courses and alternative career planning for life after graduation

Senior Fundraiser | University of Cincinnati Foundation | May 2013 – May 2016

- Raised over $150,000 in 2016 for the UC Foundation for various scholarships and departments
- Organized fundraising campaigns through alumni and students networking events

Teaching Assistant | University of Cincinnati | Aug 2012 – Dec 2012

- Mentor students for inaugural freshman engineering program, help them in picking engineering major
- Help department and professors build curriculum and coursework for freshman engineers
- Proctor exams and finals, and grade homework for freshman engineering courses and run class sessions