Aksha Thakkar

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EDUCATION

Ira A. Fulton Schools of Engineering, Arizona State University **Tempe, AZ**
Master of Science in Computer Science, 3.89/4 Aug 2021 – May 2023
Courses: Foundation of Algorithms, Deep Learning, Computing for Data-driven Optimization

Institute of Technology, Nirma University **Ahmedabad, India**
Bachelor of Technology in Information Technology Jun 2017 – May 2021
Courses: Database Management Systems, Object-Oriented Programming, Deep Learning, Cloud Computing

EXPERIENCE

Engineering Summer Analyst, Goldman Sachs, Salt Lake City, UT Jun 2022 - Present
- Enhanced a web application keeping track of Liquidity Assets by delivering RESTful web services with Java Spring Boot, Maven and DB2 SQL to achieve increased customization views for users leading to rise in user engagement by 7%.
- Integrated calendar Plex APIs with Slang and Python to annotate daily projections for the Corporate Treasury team.
- Refined the UI using ReactJS, JSX, HTML and CSS. Tested features using Cypress framework achieving 80%+ code coverage.

Research Aide, Thunderbird School of Management, ASU, Tempe, AZ Jan 2022 – May 2022
- Contributed to research examining changes in Marketing and Consumer behavior during the COVID-19 pandemic by building regression models and visualization dashboards using Python, Tableau, SPSS and SAS.
- Coached more than 250 students and designed coursework, assignments and quizzes for TGM 557: Global Marketing and Data Analytics under the guidance of Dr. Preethika Sainam.

Teaching Assistant, W. P. Carey Business School, ASU, Tempe, AZ Sep 2021 – Nov 2021
- Responsible for counseling and assessment on domains like Database Management, Relational Models, Data Analytics and Visualization with Tableau for course CIS 505: Intro to Enterprise Analytics under guidance of Dr. Tamuchin McCreless.

Data Science Intern, Jio Platforms Limited (JPL AI CoE), Bangalore, India (Remote) Jan 2021 – Jun 2021
- Formulated binary and multi-class prediction models with Sklearn, OpenCV and evaluated them for sports (cricket) analytics.
- Applied XGBoost to increase the accuracy to 76%, used Pandas & Tableau for data visualization and PyCaret to deploy models.
- Delivered web modules for presenting telecom data using NodeJS, jQuery and MongoDB Database.

Software Development Intern, Pentaforce Printing Softwares, Mumbai, India (Remote) May 2020 – Jul 2020
- Programmed a web application using PHP, MySQL, Bootstrap, HTML, CSS and used ChartJS to create data visualizations showcasing quality reports which record the efficiency and downtime for a cluster of machines.
- Incorporated Swing API for updating machine information and generating alerts.

SKILLS AND EXPERTISE

Languages: Java, Python, C/C++, JavaScript, Ruby, R, TypeScript, PHP, SQL, Julia, HTML, CSS, Slang, SPSS, SAS
Tools and Technologies: MySQL, TensorFlow, Keras, OpenCV, PyTorch, SciPy, NumPy, Pandas, Flair, NodeJS, Git, Visual Studio, Sklearn, jQuery, ChartJS, Tableau, Hadoop, Hive, DB2, MongoDB, AWS, MapReduce, Gym, VueJS, REST, JSON, AJAX, Unix, Bootstrap, Flask, PyCaret, Flutter, ReactJS, Maven, Java Spring Boot, Plex, IntelliJ, JSX, Cypress, Swing, JUnit.

ACADEMIC PROJECTS

Stock Price Prediction based on Twitter Sentiment Aug 2021 – Nov 2021
- Active contributor to the open-source project (Stonks_3.0) for Prediction of Stock Prices using Twitter Sentiment Analysis.
- Implemented Flair (DistilBERT) based Sentiment Analysis model on tweets extracted from Twitter API and stock prices from Yfinance. Illustrated data of AAPL, TSLA and MSFT stock prices and achieved a correlation coefficient of 0.91 on test data.

Automated Interface for Bomb Disposal Robot Aug 2020 – Mar 2021
- Designed a full stack web application for controlling Raspberry Pi and deployed Reinforcement Learning models using Gym Toolkit, TensoFlow and Keras. Implemented Monte-Carlo methods and Actor Critic Methods and trained the simulated robotic environment of 2 degrees of freedom to reach its desired goal in less than 150 epochs.

Exoplanet Detection and Checking Habitability Jan 2020 – Apr 2020
- Implemented a Deep Learning model on Kepler's Object of Interest data from NASA archive with PHL's exoplanet catalog data to identify exoplanet and check their habitability using Sklearn and TensorFlow. Achieved 92% accuracy using SVM and compared results with Regression and Naive Bayes classifiers.

Virtual Reality Game Aug 2019 – Dec 2019
- Built a virtual reality first person shooter game as part of the Decentraland hackathon. Applied TypeScript to create interactive modules for character movement, environment and UI modules like character health and points earned.
- Utilized Flask API to import descriptive metadata for a piece of virtual space where the game was deployed.

Student Management System Jan 2019 – May 2019
- Architected a student management system by making use of NodeJS, HTML, CSS, JavaScript, jQuery and AJAX.
- Delivered features to manage information of students like attendance, examination marks and administrative data and tested them using JUnit testing framework.

PUBLICATION

Author : "An online planning agent to optimize the policy of resource management" , International Conference of Computing Communication and Cyber Security (IC4S 2020) supported by Springer. DOI : 10.1007/978-981-16-0733-2_33

AFFILIATIONS

- General Secretary, Computer Society of India: Organizing and managing events and coding competitions.
- Member, New York Academy of Sciences
- Team member, Arrow: Modeled object detection and classification models for images taken by an aerial unmanned vehicle.