DARSH YOGESHBHAI PATEL

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EDUCATION

MS, Software Engineering Graduation:- May 2025
Arizona State University, Tempe, AZ 3.94/4.00 GPA
Relevant coursework: Advanced Data Structures and Algorithms, Data Visualization, Software Agility

Bachelors, Computers Science and Engineering Graduation:- May 2023
Indian Institute of Information Technology, India 3.57/4.00 GPA
Relevant coursework: Business Analytics, Data Analytics and Visualization, Artificial Intelligence.

TECHNICAL SKILLS

Development: React.js, Node.js, Angular.js, back-end, front-end, full-stack, Git, Github, Docker, Lean and Agile Methodologies, HTML, Cascading Style Sheets (CSS), Postman, Linux, Amazon Web Services (AWS), firebase, DevOps, MLOps, MySQL, MatLab, Selenium, ArchiMate, Blockchain, Solidity, Smart Contracts, Truffle, Internet of things (IOT), Arduino, Raspberry Pi.
Data Science: Data Analytics, Data Visualization, Data Modeling, Predictive Analysis, Data Collection, Web Scrapping, Data Cleaning, Dashboard Creation, Tableau, Power BI, Statistical Analysis System (SAS), Snowflake, Machine Learning, Deep Learning, LSTM, OpenCV, TensorFlow, PyTorch, Keras, Numpy, Pandas.
Languages: C (Programming Language), C++, Java, Python (Programming Language), JavaScript, SQL, XML.
Certifications: Nvidia Deep Learning Certificate

EXPERIENCE

RoundTech Square, San Francisco: Software Engineer Intern Jan 2023 - Jun 2023

- Implemented Tech Stack: **HTML, CSS, JavaScript, ReactJS, NodeJS, ExpressJS, MongoDB, Php, XML, Postman, Git, Github.**
- Developed Full-Stack web applications on MERN stack.
- Conducted unit testing, API testing (Postman), acceptance testing and integrated static code analysis in pipeline.
- Integrated CI/CD pipeline for DevOps.
- Managed and cleaned consumer data on google cloud (GCP).
- Worked in an Agile environment and participated in SCRUM ceremonies.

Garage Works, Pune, India: Machine Learning Intern Aug 2022 - Dec 2022

- Implemented Tech Stack: **Python, Pandas, Numpy, Matplotlib, seaborn, OpenCV, Scikit-learn, Tensorflow, CNN, Mask R-CNN, OCR, AWS, Snowflake, Flask, Pytorch.**
- Built Deep Learning Model to detect objects using the Tensorflow library and Pytorch.
- Created CNN and Mask R-CNN Models for detecting complex objects within images.
- Experimented with Image classification, Object detection and Image Segmentation to improve results. Accuracy of prediction: 87%
- Implemented OpenCV for image processing, excessive data cleaning and used AWS and flask to deploy the model on application.

IIIT, Vadodara, India: Data Analytics Research Intern Mar 2022 - Jun 2022

- Implemented Tech Stack: **Python, Pandas, Numpy, matplotlib, seaborn, Gramian Angluar Field (GAF), Statistical Analysis System (SAS), OpenCV, Data cleaning, Data Modeling, Image Classification, Clustering, K-means, Conv. LSTM.**
- Led a collaborative effort with Curtin University, Australia, to pioneer the development of an advanced model aimed at uncovering the distinctive strategies employed by football teams.
- Engineered a robust time-series model utilizing historical data to predict the strategies deployed by football teams during live matches.
- Applied expertise in data cleaning, preprocessing, and analytics to enhance the accuracy and reliability of the predictive model.
- Leveraged adv. techniques:- Gramian Angular Field (GAF) and Convoluted LSTM to extract valuable insights from complex football data.
- Implemented an image classification model to further refine the analysis and predict match outcomes with precision.

ACADEMIC PROJECTS

Agile Metrics Visualization Tool

- Our ongoing project, an analytics tool, measures agile metrics for projects following agile and lean methodologies.
- With a Python back-end and JavaScript-based front-end, our five-member team manages it over four months.
- Analyzed the cleaned data and trained relevant machine learning models on them.
- We adhere rigorously to **agile and lean principles**, conducting **SCRUM Ceremonies, maintaining a Kanban board**
- Additionally, have implemented **CI/CD pipeline, and have integrated static code analysis, unit tests, smoke tests and integration tests.**
- Converted monolithic to micro-service architecture, containerized it using **Docker** and deployed it on live server.

Insurance Vehicle Damage Prediction Model Development

- Developed an AI model to predict the damage on vehicles for insurance companies.
- Gathered valuable data and performed data cleaning practices on them.
- Analyzed the cleaned data and trained relevant machine learning models on them.
- Refined the model further by providing more quality data and refining the weights of the model.