




MIHIR GANDHI

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EDUCATION

Georgia Institute of Technology

August 2021 – May 2023

Master of Science in Computer Science, Machine Learning Specialization, GPA: 4.0/4.0

Atlanta, GA

KJ Somaiya College of Engineering, University of Mumbai

August 2016 – October 2020

Bachelor of Technology in Computer Engineering, GPA: 9.5/10.0

Mumbai, India

PROFESSIONAL EXPERIENCE

Software Engineer (AI) | BlackRock | New York, NY

August 2023 – Present

- Developing a conversational AI platform to deliver real-time market insights, investment strategies, and product information to 2M+ monthly users. Thereby transforming user interactions into a seamless 'Zero-click' experience.
- Spearheaded the development of a scalable Analytics Chatbot for PowerBI/Tableau dashboards leveraging GPT-4, enabling users to perform data manipulation & receive natural language Q&A support, resulting in improved dashboard adoption.
- Analyzed telemetry data to identify usage trends, guiding prioritization of development efforts for Aladdin Research.

Machine Learning Engineer Intern | Joulea | Atlanta, GA

August 2022 – May 2023

- Designed an ML algorithm for detecting structural and thermal defects in commercial buildings using RGB and IR images, facilitating autonomous drone-based structural health monitoring and reducing manual inspection time by over 95%.
- Developed a model to detect anomalies in HVAC equipment using sensor data from Building Automation Systems (BAS) with 82% accuracy, enabling fault diagnosis and predictive maintenance to reduce operational costs and downtime.
- Built a regression model to forecast weekly power usage of a building based on weather forecasts, occupancy data, and BAS system data, achieving 95% accuracy. Thereby improved the Physics-based Building Energy Model.

Software Engineering Intern | BlackRock | Atlanta, GA

June 2022 – August 2022

- Streamlined data integration between Aladdin and eFront using Kafka for event-based streaming, enabling Whole Portfolio view for comprehensive oversight of both private and public investments by clients.
- Designed an efficient inter-entity dependency management system utilizing an Entity-to-Entity mapping combined with an Aggregator, resulting in a 28% reduction in total processing time and a 40% decrease in peak memory load.
- Automated data collection & summary report generation for the Active Investments Team, boosting productivity by 75%.

Software Engineer | Reliance Jio | Mumbai, India

July 2020 – June 2021

- Designed and implemented session control server failover/failback strategies, reducing registration failures by 12%.
- Automated packet delivery statistics analysis with JavaScript and Shell script, slashing analysis time by 92% and ensuring timely enhancements rollout in the IMS Core for 4G-5G interworking support.

SKILLS

Programming Languages: Python, Java, JavaScript, SQL

Frameworks & Tools: PyTorch, TensorFlow, scikit-learn, NLTK, LangChain, PySpark, Hadoop, Kafka, Tableau, Power BI, Git

PROJECTS

Intelligent Traffic Management System | Python, TensorFlow, YOLO Object Detection, Pygame

- Developed a system that optimizes signal timings based on real-time traffic volume, cutting average wait time by 23%.
- Trained a bespoke YOLO Object Detection model to identify vehicle class in an image with 85% accuracy.
- Pioneered a comprehensive simulation using Pygame to compare the efficacy of our system against traditional methods.
- Demonstrated the project on a distinguished national stage, amassing over 120k views & acclaim from industry leaders.

Enron Email Corpus Analysis | Python, scikit-learn, NumPy, Pandas, Matplotlib, NLTK

- Classified 500k+ emails by purpose based on subject, content, & metadata using a Latent Dirichlet allocation model.
- Analyzed the social network by modeling the communication between 150+ employees to identify key influencers.
- Performed anomaly detection on metadata using Isolation Forests to detect abnormal behavior leading to the scandal.

Sign Language Recognition App | Python, TensorFlow, Keras, Java, Android Studio

- Led a team of 3 to design a novel lightweight Convolutional Neural Network(CNN) for Sign Language recognition based on VGG-16 architecture, achieving an accuracy of 89% with an average detection time of 1.2 seconds.
- Deployed the CNN in an Android application using TensorFlow Lite to enable offline and mobile use.

PUBLICATIONS

Sign Language Recognition using Convolutional Neural Network: Springer ICACDS 2021.

Smart Control of Traffic Light using Artificial Intelligence: IEEE ICRAIE 2020.

Decentralized Freelancing System - Trust and Transparency: IRJET Volume 6 Issue 9, September 2019.