Mayush Timmapuram

mayushtim01@gmail.com
+1 (716)465-4972

Website: tmayush.me
GitHub: tmayush
LinkedIn: tmayush

WORK EXPERIENCE

Cloud & Backend Engineer   **January 2025 - Present**
Kaleida Health   Buffalo, United States

- Managed AWS infrastructure for a full-stack application by deploying a Spring Boot backend on Elastic Beanstalk (using Nginx), hosting the frontend on EC2, and maintaining MySQL databases on RDS.
- Optimized API performance in the user authentication module by refactoring inefficient multi-table join queries into indexed queries, reducing response times by 35%.
- Developed and integrated new API endpoints to streamline data flow and enhance overall application functionality.

Machine Learning Intern   **July 2023 - August 2023**
Quixy   Hyderabad, India

- Used spaCy to build custom NER pipelines automating business rules and collaborated with cross-functional teams to integrate these NLP models into daily operations, resulting in a 15% boost in entity extraction accuracy and a 10% reduction in processing times.
- Engineered custom actions triggered by natural language inputs for a no-code platform, reducing manual configuration time by 30%.

Data Engineer Intern   **August 2022 - October 2022**
HalSys IT Solutions   Hyderabad, India

- Developed and maintained ETL pipelines using Python, SQL, and Apache Spark, reducing data processing latency and ensuring timely delivery of analytics.
- Optimized SQL queries and implemented table partitioning in line with normalization practices, resulting in a measurable 20% reduction in query execution times.

EDUCATION

Master's in Computer Science and Engineering   **Aug 2024 - Present**
University at Buffalo

Bachelor of Engineering in Artificial Intelligence and Data Science   **Dec 2020 - July 2024**
Osmania University

PROJECTS

Clubomania | MongoDB, Express, React, Nodejs   Github

- Developed a web application using MERN stack, allowing university students to create and share events on a common platform.
- Implemented the backend using Express, including API endpoint configuration, routing, and MongoDB integration. Built the dashboard component for club members to manage their events.

Understanding the Regional Differences in World Happiness Index Using Machine Learning   Github

- Analyzed World Happiness Report data (2015 - 2022) to identify key factors influencing national happiness scores and derived policy recommendations by examining top progressive and regressive countries.
- Implemented machine learning algorithms, including Random Forest Regression and K-Nearest Neighbor Classification, to predict happiness scores and categorize countries based on happiness levels.

Handwriting to Text Detection | Tensorflow, OpenCV, Python, HTML, CSS, JavaScript   Github

- Utilized Tensorflow and OpenCV libraries for image processing and data analysis
- Achieved 95% accuracy by using the model which consists of 5 CNN layers, 2 RNN (LSTM) layers and the CTC loss and decoding layer

RESEARCH EXPERIENCE

Understanding the Regional Differences in World Happiness Index   Google Drive
ICSES 2023 International Conference || IEEE

Early prediction of Vector Borne Diseases Using DL and ML Techniques   Google Drive
ICACI 2023 International Conference || Springer

CERTIFICATIONS

Microsoft Azure Machine Learning Fundamentals   LinkedIn
Agile Project Management with Jira Cloud   LinkedIn

SKILLS

Programming Languages	JavaScript, Python, R, Java, Kotlin, C++
Frameworks/Libraries/Other	OpenCV, Tensorflow, Keras, Scikit-Learn, PyTorch, React, Express/NodeJS, MongoDB, SQL, HTML, CSS/Bootstrap, Bash, Electron, Springboot
Software and Tools	Git, Github, Android Studio, Figma, Linux, JIRA, AWS, Google Cloud