Chaitanya Yeole

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Education

University at Buffalo, The State University of New York Aug 2023 – Jun 2025
Master of Science in Computer Science and Engineering
Coursework: Machine Learning, Analysis of Algorithms, Data Intensive Computing, Computer Security

MIT World Peace University Jul 2017 – Oct 2021
B.Tech in Electronics and Communication Engineering **GPA: 8.66/10**
Coursework: Data Science, Fuzzy Logic and Graph theory, NLP, Neural Networks, Pattern Recognition

Experience

Assistant Fullstack Developer, University at Buffalo *(Python, React, SQL)* Sep 2023 – present

- Spearheaded the modernization of REDfly's legacy PHP platform by architecting a responsive web infrastructure leveraging Python and JavaScript, enhancing site responsiveness and user engagement.
- Streamlined data retrieval process by integrating GraphQL APIs and utilizing SQLAlchemy boosting backend efficiency by 30%.

Software Development Engineer II, Statiq *(Python, SQL, MongoDB, Redis, AWS)* Jan 2021 – Jun 2023

- Led a cross-functional team of four in developing a scalable, efficient OCPP server for EV charging stations, integrating WebSockets and FastAPI, which boosted project delivery efficiency by 45%.
- Remodeled the WebSockets server, transitioning it from a WSGI to an ASGI model using FastAPI and deploying it on Uvicorn, reducing the load on server by 90%.
- Deployed an interactive dashboard for custom notification using AWS lambda and Python, enabling the marketing team to enhance client interaction and increase the EV owner base by 17%.
- Established direct link between mobile app (HTTP) and WebSockets server via AWS SQS (Simple Queue Service), reducing administrative overhead.
- Designed and constructed a MySQL database architecture to integrate the CSMS (Charging Station Management System), MobileApp, and WebSockets server.
- Incorporated scalable, asynchronous payment APIs using Python, contributing to a 21% increase in overall transaction rate.
- Integrated Sentry API and standardized log format, increasing the internal team's issue resolution and debugging efficiency by 38%.
- Collaborated with the CTO to formulate and prioritize technical strategies, contributing to successful Series A funding of $25.7M.

Projects

Netflix Film Rating Prediction Analysis

- Developed a predictive model using machine learning algorithms to analyze key success factors for streaming media, focusing on attributes like genre, actor influence, and audience ratings to forecast film performance.
- Employed Decision Tree, Logistic Regression, and Random Forest regression techniques to analyze a Kaggle dataset, creating a model that effectively identifies high-potential content for streaming platforms with notable accuracy.

Virtual Library Management System

- Created a web-based Library Management System using Python, React, and MySQL, streamlining book management with features like advanced searching and real-time availability checks.
- Enhanced intuitive features like book activity tracking and efficient search filters, improving librarian workflow and user experience.

Optical Character Recognition using Google Cloud Platform

- Developed an OCR system technology using Google Vision API to detect and translate it into different languages.
- Engineered an image storage workflow on the Google Cloud Platform and utilized the OCR module of the API to extract the text.

Image Classification using VGG-16

- Implemented VGG16 model using TensorFlow and NumPy for animal classification on a Kaggle dataset, achieving 95% accuracy.
- Extended the classification framework leveraging LSTMs and RNNs to detect and analyze animal behavior patterns.

Technical Skills

Languages: Python, C++, Embedded C, SQL, Javascript, HTML/CSS
Frameworks: GraphQL, FastAPI, React, WebSockets
Developer Tools: Amazon Web Services (AWS), Git, MySQL, MongoDB, Redis, Elasticsearch, Postman

Research Experience

[1] Chaitanya Yeole, et al. (Jun 2021) Deep Learning Techniques for Human Activity Recognition, IJISRT

Awards

National Robocon 2020, ABU Robocon: All India Rank 1 Jun 2020

- Engineered omni-directional robots with an ARM Cortex M4 and advanced sensor integration, achieving tasks within 90 seconds.

National SAVe 2019, NIOT: All India Rank 3 Jan 2019

- Programmed an AUV using NVIDIA Jetson TX1 integrating PyKinect and ROS libraries for task-specific image processing.

National Robocon 2018, ABU Robocon: All India Rank 2 Mar 2018

- Devised a coordinate-mapping equation for a robot with rotary encoders, enabling precise autonomous movement to any location.