Mythili Aitha

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Education:

Mater of Science | Computer Science   Graduated: May 2024
University of Houston
Bachelor of Technology | Computer Science and Engineering   Graduated: April 2022
Sreenidhi Institute of Science & Technology

Technical Skills:

Programming & Scripting Languages: PHP, Python, C, Java, JavaScript, TypeScript, React.js, Redux, Express.js, Node.js, Angular, HTML5, CSS3, Django, Flask, Bootstrap, REST APIs, SwiftUI, UIKit, SpringBoot
Cloud & DevOps: AWS, GCP, Docker, GIT, CI/CD.
Data Management: MySQL, MongoDB, DynamoDB
Machine Learning & Data Science: TensorFlow, Keras, NLP, Scikit-Learn, LLM's, AutoEncoder, Text Generation, Data Augmentation, Transformers
Certifications – AWS Cloud Practitioner

Professional Experience

Web Developer, University of Houston, TX   **Dec 2023 – May 2024**

- Updated the university website using HTML, CSS, JavaScript, ReactJS, and Cascade CMS, increasing page views by **40%** and user engagement by **25%**.
- Improved data display with Python tools like Pandas and NumPy, and created interactive charts using D3.js and Chart.js, making data easier to understand and boosting engagement by **40%**.
- **Optimized Website Performance**: Improved page loading speeds by optimizing images, minimizing CSS/JS files, and using caching, reducing load times by **30%**.

Software Developer, Agile Solutions, India   **May 2021 – July 2022**

- **Designed and deployed** an expert system for domain-specific conversations using NLP, Deep Learning, and Flask, which included preparing **large-scale datasets** and developing an **XGBoost ML model** that improved disease treatment predictions and test recommendations by **30%**.
- **Developed an XSJS parser** in JavaScript to convert XSJS code into abstract syntax trees, deployed on **Google Cloud Platform (GCP)**, improving parsing efficiency by **25%**, and optimized cloud storage bucket updates.
- Identified, extracted, and securely migrated confidential information from XSJS code to GCP buckets, enhancing data security during the cloud migration process.

Projects:

Full- Stack eCommerce Web Application

- **Engineered a full-stack eCommerce platform** using **React (frontend)** and **Java-Spring Boot (backend)** with user authentication, product catalog, cart, checkout, and order management functionalities.
- **Designed scalable REST APIs** with DTO-layered architecture and **MySQL integration** to manage users, products, payments, addresses, and inventory.
- **Developed a responsive Admin Dashboard** with MUI to manage products, discounts, customers, and orders, including analytics features like revenue charts, low stock alerts, and dynamic filtering.

Aspect-Based Comment Summarizer

- **Developed an Aspect-Based Sentiment Analysis** system utilizing both abstractive and extractive methods for accurate comment summarization.
- Implemented ensemble **NLP models**, including **T5Generator and RoBERTa**, achieving a 70% improvement in aspect identification accuracy.
- Built a scalable, parallel processing framework capable of handling over 10000 comments daily, optimizing BART to achieve 80% precision and a 40% improvement in processing speed.

Serverless Hosting of Travel Away Web-Application

- **Built a web application** for making travel plans, managing accommodation, and transportation and hosted it on a serverless environment.
- Enables users to create their profile and select their destinations and tour packages. Here, I used various AWS services to accomplish this ask few of them are API Gateway, AWS lambda, Cognito, RDS and Amplify.

Severity Evaluation For COVID-19 Admissions (SECOVID-A):

- Developed a predictive system using clinical data and X-Ray images to assess the severity of COVID-19 cases.
- Designed and implemented a Siamese multi-modal network that achieved a sensitivity of 0.95 and specificity of 0.9 in predicting ICU admissions.