PAVAN KALYAN GUDE

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Profile Summary

With 3.4 years of experience in Software Development, I specialize in building scalable web applications, backend development, API integration, and full-stack solutions. Proficient in JavaScript, Python, Java, API Integration MongoDB, AWS, and GraphQL, I focus on optimizing performance and delivering innovative solutions.

Education

Master of Science: Computer Science — **January 2023 - May 2024**
University Of Missouri St-Louis – Saint Louis, MO — GPA: 3.5/4
Bachelor of Technology: Computer Science — **June 2015 - May 2019**
Andhra University – Visakhapatnam, India — GPA: 7.02/10

Professional Experience

Software Development Engineer II. – OYO ROOMS, Gurgaon, India — **December 2021 – December 2022**

- Part of **Belvilla migration** team, a Europe-based property rental website, to OYO by **creating and managing redirected API links** to ensure a seamless user transition from Belvilla to OYO.
- Developed and maintained the **Games Section** on the OYO Website, which was introduced in 2022 to boost user engagement, including interactive elements like **leaderboards** and **rewards**.
- Leveraged **Jenkins**, **Docker**, and **Kubernetes** in **CI/CD pipelines**, enabling zero downtime deployments for game updates, particularly for managing daily leaderboard and rewards distribution.
- Integrated the **React frontend** with **RESTful APIs**, ensuring smooth handling of massive daily requests, reducing production defects and ensuring a seamless experience.

Software Development Engineer I. – OYO ROOMS, Gurgaon, India — **September 2019 – December 2021**

- Part of **lifeline website** development for OYO, which was used to **onboard properties** to the platform.
- Implemented **API calls to enable coupons** for hotels, either by area, city, or hotel-specific, optimizing revenue strategies across regions.
- **Resolved coupon delay** issues by optimizing coupon validation queries with a **caching mechanism**, **reducing validation time by 40%** and improving system efficiency.

Technical Skills

- **Programming**: JavaScript, React, HTML & CSS, Java, Python, TypeScript.
- **Databases**: MySQL, SQL, Mongo DB, RDS
- **Web Technologies:** HTML5, CSS, Bootstrap, Rest API, GraphQL, Apache Kafka, Spring (MVC, Boot), NodeJS, React.js
- **Technologies/Tools**: Redux, Express, JMeter / GitHub, Docker Desktop, JIRA, VsCode, Jupyter Notebook.
- **Cloud Technologies**: AWS Cloud (Glue, Athena, EC2, ECS, S3, Lambda, CloudWatch), Azure, MongoDB
- **Data Processing & Reporting Tools**: Pandas, NumPy, Spark, TensorFlow, Machine Learning.

Projects

- **Student Course Curriculum Project:** Developed a dynamic web application for UMSL's course curriculum, enabling students to easily browse and filter courses based on completed course levels, electives, and semester availability, improving course selection efficiency and user experience.
  Built an admin portal for automatic parsing and uploading of updated curriculum data each semester or year, streamlining the process of displaying new course offerings and significantly reducing manual efforts for administrators.
- **AI-Image Generator:** Created a full-stack application integrating OpenAI's DALL-E API to generate images from user prompts, with secure backend routes and responsive frontend.
  Optimized backend performance and ensured scalability through structured data models and secure environment handling.
- **Burger Palace:** Developed a web application that allows users to build and order custom burgers interactively, with real-time data storage and order management via firebase. Ensured efficient data flow and seamless user interactions by implementing state management with Redux.
- **Web Traffic Analysis:** Deep Learning Project, where I analyzed web traffic to detect anomalies and predict future trends using advanced time series forecasting techniques. Project aims to enhance the accuracy of traffic prediction and identify unusual patterns.
- **Training AI to Decipher Human Expressions:** Implemented emotion and gender recognition using deep learning models to enhance interpretability and transparency. The project integrates Local Interpretable Model Agnostic Explanations (LIME) and Grad-CAM techniques.
- **Cervical Cancer:** Developed a predictive model for cervical cancer diagnosis using machine learning techniques. The project focuses on identifying key risk factors and improving early detection accuracy.
- **Adversarial Attacks on Digits:** Developed and optimized a CNN model for digit recognition using the MNIST dataset, achieving high accuracy through data augmentation techniques. Enhanced model robustness by implementing adversarial attacks with Gaussian noise, evaluating vulnerabilities in specific digit classes.