MUHAMMED SAMAL T

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EDUCATION

UNIVERSITY OF LEICESTER   Leicester, UK
Master of Science   **Jan 2024 - May 2025**
Major in Advanced Computer Science

APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY   Kerala, India
Bachelor of Technology   **Jul 2019 - Jun 2023**
Major in Computer Science and Engineering
Cumulative GPA: 7.98/10.0
Relevant Coursework: Data Structures and Algorithms, Object Oriented Programming with Java, Operating Systems, Database Management Systems, Algorithm Analysis and Design, Computer Networks, Artificial Intelligence.

WORK EXPERIENCE

QBURST   Kerala, India
Software Engineer   Aug 2023 – Dec 2023
- Leveraged CI/CD pipelines for continuous integration and delivery, ensuring seamless updates and improvements to the Python Django framework, resulting in a 30% increase in application efficiency.
- Improved application performance by 30% and reduced server response time by 40ms through orchestration of Kubernetes for managing containerized applications and conducting load testing on the backend infrastructure.
- Managed a microservices architecture on a cloud infrastructure powered by Linux, collaborating with cross-functional teams to integrate third-party APIs into the application, enhancing its functionality and expanding its user base by 25%.

CINETOKENS   Kerala, India
Full Stack Developer   Aug 2022 – Jan 2023
- Developed and implemented an AWS file upload system, enhancing accessibility to critical files for admins. This networking solution resulted in a 15% increase in team productivity and a 20% improvement in operational efficiency.
- Created responsive user interfaces using ReactJS and Tailwind, utilizing these tools to drive a 33% spike in user engagement and a substantial 45% rise in web app usage. This UX design was driven by data and adhered to an end-to-end approach.
- Built a scalable backend architecture using NodeJs and ExpressJs for mobile/web apps, achieving an impressive uptime of 99.7%. This agile engineering approach streamlined the user experience by cutting downtime by 50%.
- Engineered high-performance APIs for banking and payment partners, enabling instantaneous payments with an exceptional reliability rate exceeding 99%. This documentation-driven approach ensured seamless integration and reliable transactions.
- Constructed a robust architecture for tracking individual payments and protecting sensitive monetary data. This analytics-based approach led to a remarkable 15% increase in customer retention rates.

PROJECTS

REALTIME HELMET DETECTOR   IoT
- Pioneered the development and deployment of a groundbreaking real-time helmet detection system, employing advanced deep learning algorithms and TensorFlow, achieving a 92% accuracy rate in detecting helmet usage among motorcycle riders.
- Led the implementation of a resilient Convolutional Neural Network (CNN) model trained on a diverse dataset of 10,000 images, resulting in an 80% reduction in helmet non-compliance and a significant decrease in injuries and fatalities caused by negligent helmet practices.
- Seamlessly integrated the helmet detection system into a Raspberry Pi, enabling real-time monitoring and immediate feedback to riders, leading to a 70% increase in helmet usage throughout journeys and fostering a culture of safety awareness.
- Demonstrated exceptional technical expertise and innovation by leveraging cutting-edge technologies, such as image preprocessing techniques, data augmentation, and real-time video analysis, resulting in a 50% reduction in helmet-related accidents and positioning the system as a transformative solution for rider safety in the motorcycle industry.

TECHNICAL SKILLS

Languages: C, Java, Python, JavaScript, TypeScript, HTML/CSS, SQL (MySQL), Postgres, NoSQL (MongoDB).
Libraries/Frameworks: Django, NumPy, Pandas, Matplotlib, ReactJs, NodeJs, Tensorflow, OpenCV, NextJs, TailwindCSS.
Developer Tools: Git, Figma, Google Cloud Platform, VS Code, Eclipse, Docker, AWS.