

MOHAMMED RISHIN POOLAT

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EDUCATION

UNIVERSITY OF LEICESTER

Master of Science in Advanced Computer Science

Leicester, United Kingdom

Jan 2024 - May 2025

APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY

Bachelor of Technology in Computer Science and Engineering

Kerala, India

Jul 2019 - Jun 2023

WORK EXPERIENCE

QBURST

Software Engineer

Kerala, India

Jul 2023 – Dec 2023

- Led the development of a high-impact CMS project, built robust REST API using Node.js, saving 25% in development time and achieving 98% API uptime through automated CI/CD pipelines and secure Docker containerization.
- Established a secure and scalable file upload system using AWS S3 and EC2 instances, streamlining user content management and optimising storage costs by 30%.
- Acquired a high-performance culture through agile scrum team collaboration, data security, documentation, and networking. Resulted in a 40% boost in team efficiency and delivered tasks with a 95% completion rate on GitLab.
- Enhanced real-time communication using Socket.io, minimizing latency by 70% and implemented optimizations within a PostgreSQL database, resulting in a 30% reduction in database resource consumption.

HACKATHONS

IBM CIC Hackathon: Innovation Squad Member

Feb 2024

Project: Wise Wallet

[Live](#)

- Designed and engineered an innovative receipt analysis application that extracts text from user-uploaded receipts using OCR technology, leveraging a fine-tuned AI model to provide personalized suggestions and feedback.
- Improved chatbot response accuracy by 20% with Firebase Cloud Firestore and Firestore Security Rules.
- Collaborated with a team of developers and designers to create a functional prototype under the mentorship of IBM senior engineers acquiring a position in the top five among 20 groups.

PROJECTS

PENPLY

[Live](#)

- Developed a collaborative virtual study room application using React.js, Next.js Node.js, Express.js, and Socket.io offering a smooth user experience with real-time note sharing, file sharing, event management, and chat.
- Implemented a microservices architecture across three distinct applications, facilitating scalability and maintainability, and utilized Docker for containerization, ensuring consistent development and deployment environments.
- Leveraged AWS services including EC2, DynamoDB, RDS(Relational Database Services), and S3 for a complete, high-availability, and performant cloud-based deployment.

REALTIME HELMET DETECTOR

[Source Code](#)

- Initiated the development and deployment of a real-time helmet detection system, utilizing advanced Deep Learning algorithms and Tensorflow to make data-driven decisions for the model, attaining a 90% accuracy rate.
- Built a custom Convolutional Neural Network (CNN) model on a diverse dataset of 4,000 images, and integrated the system into a RaspberryPi, resulting in an 80% reduction in helmet non-compliance.
- Demonstrated 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.

FROM HOME

[Source Code](#)

- Conceived and developed "From Home", an innovative Full-Stack E-commerce Web Application empowering home bakers, leading the creation of end-to-end REST API using Node.js, Express.js, and MongoDB.
- Managed the formation and guidance of a diverse team to integrate cutting-edge technologies, resulting in a robust, scalable platform with intuitive features.

TECHNICAL SKILLS

Languages: C, Python, JavaScript, TypeScript, HTML/CSS, SQL

Libraries/Frameworks: NumPy, Pandas, Matplotlib, Node.js, React.js, Express.js, Tensorflow, OpenCV, Socket.IO

Databases & Other: AWS, PostgreSQL, MongoDB, MySQL, Git, Docker, Kubernetes, Nginx, Redis, Prisma, RabbitMQ