Mohammed Rishin Poolat

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Education

University of Leicester	Jan 2024 - May 2025
Master of Science in Advanced Computer Science	*Leicester, United Kingdom*
APJ Abdul Kalam Technological University	July 2019 - Jun 2023
Bachelor of Technology in Computer Science and Engineering	*Kerala, India*

Experience

Qburst — Jul 2023 – Dec 2023
Software Engineer — *Kerala, India*

- 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, scalable file upload system with AWS S3 and EC2, enhancing user content management, reducing storage costs by 30%, and improving reliability through automated backup and failover mechanisms.
- 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: Finalist — Innovation Squad Member
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.

Certifications

AWS Certified Cloud Practitioner
Amazon Web Services (AWS) — *Issued: September 2024*

Projects

Penply | *Next.Js, TailwindCSS, React.Js, Node.Js, Express.Js, AWS(EC2, DynamoDB, RDS, S3)* — *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.
- 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 | *Pandas, Numpy, TensorFlow, OpenCV, Scikit-Learn* — *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, like image preprocessing, data augmentation, and real-time video analysis, resulting in a 50% reduction in helmet-related accidents.

Technical Skills

Languages: C, C++, Python, JavaScript, TypeScript, Java, SQL, HTML/CSS
Libraries/Frameworks: Numpy, Pandas, React.Js, Node.Js, OpenCV, Matplotlib, Tensorflow, MobilenetV2, Socket.IO
Databases & Other: AWS, PostgreSQL, MongoDB, MySQL, Git, Docker, Kubernetes, Nginx, Redis, Babel, RabbitMQ