

# MOHAMMED RISHIN POOLAT



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LinkedIn



GitHub



Portfolio

## EXPERIENCE

### OFFSeason

March 2024 – December 2025

Fullstack Developer

Leicester, United Kingdom

- Architected E-Commerce platform using Next.js, Stripe payments, Supabase, serving 2,000+ daily users with real-time inventory synchronization, automated email workflows via Trigger.dev, maintaining 99.5% uptime across revenue streams.
- Developed Tracy POS system with real-time inventory tracking across 2 locations, multi-payment processing, VAT management, barcode scanning, sales analytics, supporting 2,000+ daily transactions minimizing inventory discrepancies by 75%.
- Engineered AI agent ecosystem using LLMs, Model Context Protocol (MCP), n8n workflow orchestration, processing 500+ daily operations including order confirmations, payment failures, business notifications with 95% automation success rate.
- Implemented system architecture with TypeScript, PostgreSQL, Docker containerization, CI/CD pipelines, achieving zero-downtime deployments with integrated analytics dashboards for real-time business intelligence across retail operations.

### Qburst

July 2023 – December 2023

Fullstack Developer

Kerala, India

- Led development of a high-impact CMS project with microservices architecture and comprehensive testing, built REST APIs using Node.js and React component libraries, maintaining 98% API uptime through CI/CD pipelines and Docker containerization.
- Established scalable file upload system with AWS S3, EC2, and CloudFront CDN distribution, implementing React hooks for state management, reducing storage costs by 30% and improving reliability through scheduled backup.
- Excelled in agile scrum collaboration methodologies and implemented comprehensive code quality monitoring tools with Jest unit testing framework attaining 85% test coverage rates. Resulted in a 40% boost in team efficiency and 95% task completion rate.
- Enhanced real-time communication using Socket.io and React with Redis caching and connection pooling, minimizing latency by 70% and implemented optimizations within PostgreSQL database, resulting in a 30% reduction in resource consumption.

## EDUCATION

### University of Leicester

Master of Science in Advanced Computer Science

January 2024 - July 2025

Leicester, United Kingdom

### APJ Abdul Kalam Technological University

Bachelor of Technology in Computer Science and Engineering

July 2019 - June 2023

Kerala, India

## 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.

## CERTIFICATIONS

### AWS Certified Cloud Practitioner

Amazon Web Services (AWS)

Issued: September 2024

## PROJECTS

**Penply** | JavaScript, React, TailwindCSS, Node.js, Express.js, AWS(EC2, DynamoDB, RDS, S3)

[Live](#)

- Built unified collaborative study platform consolidating real-time chat, note sharing, file management, event scheduling, and calendar functionality into single interface, eliminating context switching by 75% with cloud deployment.

**Automated Essay Scoring System** | Python, NLP, DeBERTa, Machine Learning, FastAPI

[Github](#)

- Engineered hybrid automated essay scoring system combining DeBERTa ensemble with LightGBM feature models and calibration techniques, achieving 0.8358 QWK on 24,728 essays with comprehensive feedback generation and responsive web dashboard.

**Realtime Helmet Detector** | Pandas, Numpy, TensorFlow, OpenCV, Scikit-Learn, CNN

[Source Code](#)

- Engineered a real-time computer vision safety system achieving 99% accuracy using CNN built on MobileNet V2 architecture trained on 4,000+ augmented images, deployed on Raspberry Pi with live camera processing and voice alerts, reducing helmet non-compliance by 80% in motorcycle safety applications.

**Expense Tracker with Smart Receipt OCR** | .NET 9, React, TypeScript, OCR, Entity Framework, Tesseract.js, SQLite

[Github](#)

- Developed enterprise-grade expense management platform implementing Clean Architecture with intelligent dual OCR processing pipeline, achieving 95% automated receipt data extraction accuracy and comprehensive analytics dashboard.

## TECHNICAL SKILLS

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

**Frontend :** React.js, Next.js, TailwindCSS, Framer Motion, Zustand, Shadcn/UI, Redux

**Backend :** Node.js, Express.js, ASP.NET Core, FastAPI, Hono, Bun, Socket.io

**AI & Machine Learning:** LLMs, AI Agents, Model Context Protocol (MCP), NLP, TensorFlow, PyTorch, Scikit-learn, DeBERTa, CNNs

**Databases & Cloud:** PostgreSQL, MySQL, Supabase, MongoDB, Redis, AWS (S3, EC2, CloudFront), Cloudflare R2, Drizzle ORM, Prisma

**DevOps & Automation:** Docker, Git, CI/CD, RabbitMQ, BullMQ, N8N Workflow Automation, Jest, Vitest, PM2, Puppeteer, Linux