
Muhammed Shaheen TK

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Senior Software Engineer

Senior Software Engineer with 6+ years of experience architecting scalable backend systems and high-performance ETL pipelines. Specialised in Python (Django, FastAPI) with proven expertise in integrating message brokers (Kafka, NiFi) and modern AI/LLM components (RAG, Semantic Search) to drive automation and system efficiency.

WORK EXPERIENCE

Beinex • 07/2025 – Present

Kochi, India

Senior Software Engineer

- Implemented optimized tenant schema provisioning using controlled SQL templates, reducing onboarding time and removing dependency on full Django migration execution during tenant setup.
- Built a memory-efficient export module for large datasets, enabling reliable high-volume exports while reducing memory overhead.
- Designed a custom FastAPI rate-limiting framework to maintain behavioral consistency with existing Django applications.
- Supported client implementations, production troubleshooting, and post-deployment activities for business-critical enterprise applications.

Techversant • 10/2022 – 06/2025

Kochi, India

Senior Software Engineer

- Designed a high-performance ETL service processing 10,000+ messages per minute using Apache NiFi and Kafka, achieving a 40% reduction in data processing latency.
- Created and maintained the `django_query_analyzer` package, optimizing database queries and improving overall application performance by 40%.
- Spearheaded migration of legacy system to Python microservices architecture, improving response times by 60%
- Implemented comprehensive monitoring using Prometheus and Grafana, achieving 99.99% system uptime
- Built email-to-invoice pipeline integrating Postfix, RAG, and custom LLMs, Achieved 85% classification accuracy, reducing manual processing by 75%, Processed 10,000+ invoices monthly

Enfono Technologies • 01/2020 – 10/2022

Malappuram, India

Software Engineer

- Developed a comprehensive ERP system managing rent collection and financial operations for 200+ properties, streamlining processes to handle 40M+ INR annually while cutting processing time by 70%.
- Built scalable video conferencing platform supporting 10,000+ concurrent users with messaging features

Talrop • 01/2019 – 01/2020

Trivandrum, India

Junior Software Engineer

EDUCATION

Bachelor in Computer Science

University of Calicut (2016–2019)

Kerala, India

PROJECTS

Academic Data Analysis Pipeline (Premier League Research) • 09/2025

- Co-authored a peer-reviewed paper published in *Sport, Business and Management: An International Journal*.
- Engineered legal data-scraping workflows utilising Reddit and Twitter APIs.
- Performed deep data analysis and generated complex data visualizations to plot research findings.

Profcon (Real-time Conferencing System)

- Developed a scalable platform handling 10,000+ simultaneous users with real-time messaging capabilities.
- Designed and implemented group and private messaging for seamless communication.
- Ensured system reliability by introducing fault-tolerant mechanisms and monitoring tools.

temp-email-filter

- Developed and published a high-efficiency Python package to detect and filter disposable or temporary email addresses in real-time.
- Optimised for fast, low-latency spam detection and email validation workflows.

Invoice Processor (ERP Automation)

- Built an AI-powered ETL pipeline using OCR, RAG, and custom LLMs to automatically extract and sync financial data with client ERP systems via semantic search.
- Achieved **90% extraction accuracy**, reducing manual data entry by **60%** and overall invoice processing time by **40%**.

PUBLICATIONS

The fan-club social contract in the era of global investment: evidence from the premier league • 09/2025

Emerald

- Engineered data collection pipelines utilising Reddit and Twitter APIs for large-scale social scraping.
- Executed data analysis and developed comprehensive data visualisations and charts to support the research conclusions.

SKILLS

Languages & Frameworks: Python (Django, FastAPI), JavaScript (Node.js, Next.js), HTML

Databases & Caching: PostgreSQL, MySQL, Redis, Elasticsearch, Apache Ignite

AI & Search Technologies: LLM RAG, LangChain, Prompt Engineering, Semantic Search, AWS Bedrock

Cloud & DevOps: AWS (EC2, S3, RDS, SQS, Lambda, SNS, SES, Amplify), Docker, Jenkins, Git, Linux/Unix, Postfix

Architecture & Practices: RESTful APIs, System Architecture, Agile Methodologies, Project Management, Team Leadership