

## Education

### Middlesex University

BEng Computer Systems Engineering. GPA 4

Dubai, UAE

September 2021

**Software Engineering Modules:** Programming for Data Communication, Software Engineering Management and Development, Internet Scales Application and Development.

**Computer Hardware and Networking Modules:** Computer Networking, Network Protocol and Analysis, Computer Systems Architecture and Operating Systems, Digital Systems Design, Embedded Systems, and Real-Time Systems

## Experience

### Zainlee Technologies

AI Quoz Industrial Area 1, Dubai

#### AI Engineer

May 2025 – Current

- Architected an Omnichannel AI Agent to handle massive traffic, utilizing MCP tool management and integrating vector databases (Pinecone, Redis) for semantic search and persistent context. Connected to official WhatsApp and Meta Graph APIs for business automation.
- Designed a sub-second latency Real-Time AI Voice Platform bridging SIP telephony via Twilio and local FreePBX/GSM with web clients. Leveraged OpenAI Realtime, Gemini Live, XAI Voice API, Deepgram, and LiveKit with sophisticated tool calling and Mem0 memory orchestration.
- Developed a multi-modal LiveKit WebRTC platform bridging interactive 3D avatars with remote LLM backends, featuring precise cognitive state synchronization and zero REST bottlenecks.
- Engineered a zero-downtime RTSP Computer Vision Pipeline executing continuous face alignment and extraction on CPU-optimized ONNX models (YuNet, InsightFace). Features hot-swappable in-memory vector indices and real-time mobile push notifications.

### SkyIT Services

Remote

#### Backend Developer

Jan 2024 – May 2025

- Architected and maintained secure, enterprise-grade backend microservices using .NET Framework and C#, optimizing API performance and cross-service communication via REST and gRPC.
- Engineered complex SQL queries and robust database architectures within PostgreSQL and MS SQL Server, significantly reducing query latency for high-throughput data retrieval.
- Containerized backend applications using Docker and orchestrated deployments via Kubernetes to ensure high availability, automatic scaling, and resilient failover.
- Streamlined continuous integration and deployment lifecycles by configuring automated CI/CD pipelines, integrating rigorous unit testing and secure artifact management.
- Implemented strict OAuth2.0 and JWT-based authentication flows, ensuring secure data transit and stringent access control across all internal and external facing endpoints.

## Technical Skills & Competencies

**AI & Machine Learning:** LLM Orchestration & Prompt Engineering, Computer Vision (ONNXRuntime, InsightFace), Multimodal AI Integration (Vision, Audio), Retrieval-Augmented Generation (RAG), Voice Activity Detection (VAD), STT/TTS Streaming Pipelines, Zero-Shot Data Augmentation.

**Backend & Infrastructure:** Python, FastAPI, Node.js, C#, .NET Framework, Live Video Streaming (RTSP, HLS, FFmpeg), WebRTC (LiveKit), SIP Telephony (Twilio), Vector Databases (Pinecone, Redis), PostgreSQL, MS SQL Server, Event-Driven Architecture, REST/gRPC.

**Cloud & DevOps:** Docker, Kubernetes, AWS, Automated CI/CD Pipelines (Jenkins, Terraform), High-Traffic Scaling Optimization, Sub-second Latency Profiling, Hot-Reloading & Zero Downtime Systems, Linux.

**Frontend & Integration:** LiReact.js, Next.js, Tailwind CSS, State Management, Real-time UI, MCP Tool Management, Omnichannel APIs (WhatsApp, Meta Graph), Mobile Web Push Notifications.