

JOSHAN JOHN

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PROFESSIONAL SUMMARY

Software Engineer and AI/ML Engineer with experience building enterprise AI solutions, machine learning models, scalable backend systems, and full-stack applications. Skilled in Java, Python, and TypeScript, Flutter, Spring Boot, and modern AI frameworks, including LangChain, LangGraph, and RAG architectures. First Class Honours (1.1) Computing Science graduate with hands-on industry experience at IBM and startups. Eligible to work full-time in Ireland and transitioning to Stamp 1G, with a strong passion for building innovative, scalable, and impactful technology solutions.

SKILLS

- **Strong programming, OOP, data structures & algorithms:** Java, Python, C++, Dart, PHP, TypeScript
- **Advanced AI/ML knowledge:** LangChain, RAG, LangGraph workflows, embeddings, MCP, TensorFlow, Keras, LLM-finetuning, CNN, RNN, MLOps.
- **Full-Stack Development:** React, Flutter, Spring Boot, HTML, CSS, JavaScript.
- **Distributed System and Advanced Networking:** MPI, OSI model, routing, gRPC, multi-threading
- **Databases:** PostgreSQL, MySQL, MongoDB, Hive, MonetDB, Milvus, ChromaDB
- **Cloud & DevOps:** IBM Cloud, GCP, Azure, DigitalOcean, Git, Docker, Kubernetes, GitHub Copilot, CI/CD, Unit and Integration testing.
- **System Design:** Microservice, Monolithic, Event-driven, TDD, and Agile.
- **Security:** Cryptography basics, OAuth/Identity, Secure Coding Practices, OWASP
- **Soft Skills:** Clear and strong communication, leadership, organisation, decision-making, and high adaptability.

WORK EXPERIENCES

AIML and Java Developer Intern - Elevated Labs

Remote, India | May 2026 - June 2026

- Performed data analysis, feature engineering, and visualization using Python and key data science libraries.
- Developed and optimized machine learning models for prediction, classification, and customer analytics.
- Created sales forecasting and customer segmentation solutions using XGBoost and K-Means clustering.
- Improved model performance through hyperparameter tuning, cross-validation, and rigorous evaluation.
- Delivered complete machine learning solutions with clear documentation and reproducible workflows.

Software Developer Intern - IBM

Dublin, Ireland | Jan 2025 - Sept 2025

- Developed AI-powered RAG solutions for IBM Process Mining 2.0 and Blueworks Live, contributing to KPI optimization, automated insights, and measurable business impact.
- Built scalable data pipelines and optimized FastAPI and Spring Boot services for enterprise-scale search and analytics workloads.
- Improved retrieval accuracy using vector databases such as Milvus and ChromaDB.
- Increased automated test coverage from 20% to 90%, enhancing reliability and reducing production defects.
- Contributed to CI/CD, testing, code quality, and security initiatives while collaborating with global Agile teams.

Software Engineer - JesLife

Remote | Jan 2024 - Sept 2025

- Architected and scaled concurrent Node.js backend RESTful APIs with multi-layer data validation and secure JWT token-based authentication to increase system availability and performance.
- Engineered a responsive, user-centric UI using Flutter, widget rendering, and navigation, optimizing for a seamless cross-platform experience for Web, Android, and iOS users.
- Normalised MongoDB data models and enforced caching strategies that significantly reduced query latency and improved overall application responsiveness.
- Managed deployment and monitoring of backend services using DigitalOcean droplets, ensuring stable and reliable production environments.
- Spearheaded feature delivery within an Agile framework using Jira, coordinating with designers and product owners to translate complex business requirements into production-ready code.

PROJECTS

Chest X-ray Classifier (CNN model)

- Built a CNN model using TensorFlow/Keras to classify chest X-rays into 4 categories (Normal, Tuberculosis, Pneumonia, Unknown), achieving 96% validation accuracy through hyperparameter tuning and data augmentation.
- Developed a cross-platform web interface for radiologists to upload X-rays and verify AI predictions, with secure user authentication.
- Set up automated ML pipeline for model training, testing, and version control to ensure consistent performance and reproducible deployments.

Lucky Wheel | Android Arcade-Style Game

- Developed and published an Android arcade-style game on the Google Play Store using Kotlin and Jetpack Compose, gaining hands-on experience in the full mobile development lifecycle from development to production release.
- **Integrated device sensors** (accelerometer) to create motion-based gameplay mechanics, strengthening understanding of Android hardware APIs and real-time input handling.
- Implemented Firebase **OAuth2.0** (Google) and a **real-time leaderboard**, scalable backend, and incorporated mobile features.

JCloud | Storage PaaS Application

- Developed a full-stack cloud storage application using FastAPI, MongoDB, and **Azure** Blob Storage with Firebase authentication, enabling secure file management and user isolation through per-user blob containers.
- Implemented comprehensive file operations, including upload/download/delete, **duplicate detection via MD5 hashing**, and hierarchical directory management with path-based access control.
- Built a responsive frontend using Jinja2 templates, Tailwind CSS, and real-time AJAX operations with breadcrumb navigation and error handling via toast notifications.
- Designed scalable architecture using **factory pattern for storage/metadata providers** and **singleton pattern** for database connections, ensuring efficient resource management and code maintainability.

EDUCATION

BSc (Hons) in Computing Science | Grade 1.1

Sept 2022 - May 2026

Griffith College Dublin, Ireland

- Relevant Coursework: Machine Learning, AI & robotics, Cloud and Service Platform, Distributed Systems.
- Hackathon winner, Class Representative 2023.

Cyber Security and Ethical Hacking Diploma

April 2019 - Aug 2019

Livewire, Kerala, India

- Topics: Foot-printing and Reconnaissance, Social Engineering, Hacking Wireless Networks, SQL Injections, Cloud Computing, Cryptography.

PROFESSIONAL CERTIFICATIONS

- **Artificial Intelligence Fundamentals** | IBM
- **Claude Code 101** | Anthropic Academy
- **Computer Vision for Data Scientists** | LinkedIn Learning
- **Explore core data Concepts** | Microsoft
- **Software Engineer Intern** | HackerRank
- **IBM Agile Explorer** | IBM
- **Cloud Computing Fundamentals** | IBM