

Aman Ottakandathil

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Experience

Software Engineer, Dexlock Technologies – Kerala, India Aug 2020 – Sept 2022

- Improved analytical query latency by 60% by implementing an optional in-memory execution mode that loaded datasets into memory and eliminated repeated database access in LeapAnalysis, a Java-based analytics engine.
- Increased backend processing throughput by 100% by designing bulk data workflows that batched database operations and reduced per-request overhead in distributed services.
- Reduced container image size by over 70% and accelerated CI/CD pipelines by refactoring Docker configurations using multi-stage builds and minimal base images.
- Migrated backend services from Java 8 to Java 11 with zero production regressions, reducing container-scan vulnerabilities from 100+ to fewer than 10 through dependency upgrades and regression testing.
- Strengthened application security by enforcing least-privilege IAM policies via CloudFormation, eliminating high-risk permissions and resolving 15+ production security vulnerabilities.
- Awarded Most Valuable Player (Top 2%) for outstanding contributions and top performance in Q4 2021.

Education

University of Leeds – Leeds, United Kingdom Nov 2023
Master of Science in Advanced Computer Science (Cloud Computing) Distinction (Grade: 8.1)

Govt. Model Engineering College – Kerala, India Aug 2020
Bachelor of Technology in Computer Science and Engineering CGPA: 8.38

Projects

Portfolio & Pacman Game, *Personal Project* Sept 2025 – Present

- Architected a full stack portfolio application using React and Spring Boot with a REST-based API and PostgreSQL persistence, enabling clean separation of frontend rendering and backend business logic.
- Developed a custom HTML5 Canvas Pac Man splash screen with a dynamically generated maze spelling a personal name, implementing real-time rendering, collision detection, and game state management.
- Containerized frontend, backend, and database services using Docker, standardizing local development and preparing the application for AWS-based deployment.

Terminal Text Editor, *Personal Project* Jan 2025 – Mar 2025

- Engineered a terminal-based text editor in Java using Java Native Access, implementing raw terminal control via ANSI escape codes and termios to manage cursor movement, editor modes, input handling, and screen rendering.
- Optimized text insertion and deletion for large files by designing a rope-based text buffer, achieving up to a 50% performance improvement over linear string manipulation.

Service Mesh Tracing Framework, *MSc Project* Jan 2023 – Sept 2023

- Architected a Spring Boot-based distributed tracing framework using Istio service mesh telemetry to capture inter-service request flows, process low-level latency metrics, and persist trace data in MongoDB.
- Researched Kubernetes and service mesh architectures in large-scale clusters, contributing to a measurable reduction in debugging and root-cause analysis time.

Skills

Languages: Java, JavaScript, C (Familiarity), Bash.

Frameworks & Libraries: Spring Boot, Hibernate ORM, Node.js, React.js, JUnit, Maven, RESTful APIs.

Cloud & DevOps: AWS, Docker, CI/CD, Unix/Linux.

Data & Observability: SQL, NoSQL, JSON, Grafana, Prometheus.

Additional Experience

Bars & Venues Supervisor, Leeds University Union – United Kingdom Apr 2024 – Dec 2025

- Coordinated daily workflows for 4 – 8 team members in a high-throughput environment, maintaining continuous service availability and handling operational incidents during peak demand.