

# JAYASURYA PAZHANI

Software Engineer | Distributed Systems | Ontario, Canada | 514 814-2085

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Java | Data Structures & Algorithms | System Design | Scalable Microservices | AWS | Linux | PostgreSQL

## EDUCATION

Master of Software Engineering, Concordia University, Montreal, Canada	Jan 2024 – Jun 2025
Master of Computer Applications, SRM University, India	2020 – 2022
Bachelor of Computer Science, SRM University, India	2016 – 2019

## TECHNICAL SKILLS

Languages:	Java, SQL, JavaScript
Core Concepts:	Data Structures, Algorithms, Complexity Analysis (Big-O), Object-Oriented Design
Backend:	Spring Boot, RESTful Microservices
Systems:	Linux, Distributed Systems Fundamentals, System Design Principles
Databases:	PostgreSQL, Query Optimization, Relational Data Modeling
Cloud & Infrastructure:	AWS (EC2), Docker, Git
Testing:	JUnit

## EXPERIENCE

Software Engineer	Jan 2023 – Mar 2024
Cognizant	Chennai, India

- Reduced API latency by **30%** by optimizing PostgreSQL queries and indexing, improving system throughput under concurrent workloads.
- Increased service reliability by **25% fewer recurring defects** through structured logging, exception handling, and health-check endpoints to prevent failure propagation.
- Resolved **20+ production incidents** via root cause analysis and service-level debugging, minimizing downtime and restoring stable operations in AWS-hosted environments.
- Developed and maintained **15+ Java microservices** using Spring Boot, designing stateless components to support horizontal scaling across distributed service instances.
- Participated in backend design reviews to evaluate scalability and performance trade-offs, and contributed to peer code reviews to improve testability and efficiency.
- Automated deployment validation checks to improve release reliability and reduce manual configuration errors.

Frontend Engineer Intern	Jul 2024 – Aug 2024
Lump Financial Services	Montreal, QC

- Delivered production-ready frontend features by integrating React components with backend REST services, contributing to successful feature releases within sprint timelines.

Junior Software Engineer	May 2019 – Jun 2020
Cognizant	Chennai, India

- Improved system reliability by resolving backend defects in Java and SQL modules, reducing reported runtime issues by **15%** through systematic debugging and database analysis.
- Contributed to modular service design by implementing backend components aligned with object-oriented principles and maintainable architecture standards.
- Supported stable product releases by validating API behavior and assisting in technical documentation used during deployment cycles.

Frontend Developer Intern	Jun 2022 – Oct 2022
Space Zee	Chennai, India

- Improved client-server interaction reliability by assisting in debugging integration issues between frontend components and backend APIs.

## PROJECTS

### Distributed Rate Limiting & Health Monitoring Service

- Integrated structured logging, health checks, and request-level metrics to monitor throughput, detect anomalies, and support proactive issue detection.
- Implemented a thread-safe token-bucket algorithm using concurrent data structures to ensure correctness and predictable behavior under parallel execution.
- Conducted load testing to evaluate system behavior under simulated traffic bursts, analyzing response times and system stability under stress conditions.
- Deployed the service on AWS EC2 and validated startup behavior, configuration consistency, and health-check endpoints to ensure operational readiness.