

JOAN LOUJI S

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I'm a full-stack with 5+ years of experience building logistics and supply chain software where financial precision drives business decisions. I ship end-to-end systems from APIs and data pipelines to frontends and LLM-driven features and focus on rate computation, reconciliation, and production-proven workflows at scale. I bring the rigor to both traditional software and AI/ML integration.

Education

Loyola-ICAM College of Engineering and Technology

B.Tech, Information Technology

2016 – 2020

Chennai, Tamil Nadu

Experience

Quaking Aspen Pvt Ltd

Software Engineer 2, Freehand

Jan 2026 – Present

Chennai, Tamil Nadu

- Developing Gen AI solutions: costing formula generation (LLM-driven) and rate card OCR extraction; building pipelines from raw documents to structured data for pricing and contracts.
- Solutioning for formula and document-understanding use cases: model integration, evaluation, and end-to-end design; reducing technical debt and solving technical difficulties across the stack.
- Technically architecting solutions for logistics problems; driving design and implementation from problem to production.

Quaking Aspen Pvt Ltd

Software Engineer 2 ← Software Engineer 1 ← Associate Software Engineer ← Intern, Pando

Dec 2020 – Jan 2026

Chennai, Tamil Nadu

- Led a small engineering team responsible for delivering logistics finance software for a tier-1 US company; owned solutioning, delivery, and support.
- Led migration of Cost Engine and Rate Management from monolith to microservices; architected and optimized data pipelines and AWS Lambda for shipment costing at scale (billions of requests). Owned performance and reliability.
- Drove Vue 2 to Vue 3 migration for Costing Engine and Rate Management; established Vue 3 component library with Storybook for documentation and consistency.
- Designed authentication services for internal and external microservices and implemented data encryption across APIs; ensured secure access and compliance with security standards.
- Led warehouse management API (Node.js, Express) and TMS integrations (packing, WMS, dangerous goods, document service); integrated with client Informatica. Designed procurement module using mathematical programming; implemented WebSockets and polling for live backend-frontend data.
- Owned last-mile optimization algorithms and APIs; bootstrapped Flutter at Pando by migrating native Android app. Regular code reviews; conducted initial and second-round technical interviews in hiring.
- As intern: delivered carrier integration for 4 US carriers (booking, edit, cancel, track) with Pando TMS; participated in client meetings. Node.js, Vue.js, MongoDB, Docker, AWS.

Projects

Excel Table Extractor

Node.js, JavaScript, Mocha, ExcelJS, Data Structures

July 2025

- Designed and built extraction engine for irregular, disconnected, or merged cell groups from .xlsx and 2D arrays; custom block-detection and 4/8-way connectivity.
- Shipped with 100% test coverage (82+ tests, Mocha/Chai); Node.js and browser-compatible APIs for workbooks, sheets, and raw grids.

Last-Mile Delivery Assignment Engine

TypeScript, Multi-objective optimization, Cheapest Insertion + 2-opt

- Engine for assigning delivery orders to riders: multi-stage optimization, intelligent batching, dynamic surge handling; runs in near real-time (15–60s cycles) and scales to 100–1000+ orders per cycle.
- Balances 6 objectives (time, SLA risk, distance, route disruption, workload fairness, zone familiarity); respects capacity, time windows, geography; re-assignment on rider/ETA changes and high-priority arrivals.

Technical Skills

Languages: JavaScript (Node, Vue, React), TypeScript, Java, Python, C++

Frameworks / Libraries: Express.js, Fastify, Vue.js, React.js, Flutter (Dart), Django, Laravel, Spring MVC

Developer Tools: Docker, Git, GitHub, AWS, GCP, Android Studio, Nginx

Technologies / Concepts: LangChain, LLMs, RAG, prompt engineering, Linux, Microservices, REST APIs, WebSockets, CI/CD, Agile, Unit Testing (Mocha/Chai), iOS Development

Leadership: Code review, technical interviews, mentoring, managing sprint team