

Yogasimman Ravisagar

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EDUCATION

College of Engineering, Guindy

B.Tech Information Technology - CGPA : 8.11 (first 6 semesters)

Guindy, Chennai

2022 - 2026

Narayana Olympiad School

HSC - 88.16 percentage

Mogappair East, Chennai

2022

EXPERIENCE

Freelance ERP Developer

June - July, 2025

Local Water Purification Service | *Ulundurpet, IN*

- Built a desktop ERP with Tauri v2 (Rust backend, Next.js/React/TS frontend) covering inventory, invoicing, orders, and customer/vendor management with SQLite for offline-first persistence.
- Implemented Rust IPC command handlers for business logic and a maintenance module to track service history, component lifecycles, and asset status through a dashboard.
- Delivered the complete system within a 6-week timeline through direct client engagement, iterative prototyping, and on-site deployment with end-user training.

Centre for Distance Education, Anna University – Intern

July - October, 2024

- Developed a Node.js/Express web portal to manage online courses and external certifications with role-based access control for administrators and coordinators.
- Built dashboard views with aggregated metrics to provide operational insights for academic and administrative stakeholders.
- Automated scheduled data backups using cron jobs and shell scripts, reducing manual intervention and improving data reliability.

PROJECTS

AI-Based Football Injury Detection & Analysis

Python, PyTorch, YOLOv8, OSNet, Bi-LSTM

- Developed a computer vision pipeline for player detection and tracking using YOLOv8 and OSNet under occlusion scenario.
- Extracted temporal biomechanical features from player motion sequences and modeled injury risk patterns using a Bi-LSTM.
- Handled data preprocessing, feature extraction, model training, and evaluation; demonstrated injury risk classification on real match footage as a functional analytical prototype.

CivicConnect – Smart Civic Engagement

Go, Node.js, Python, Flutter, Vue.js, Docker, Kubernetes, gRPC, RabbitMQ

- Architected a microservices platform with 7 services (Go/Gin, Node.js, Python) containerised with Docker and orchestrated via Kubernetes, with Nginx as a unified API gateway.
- Designed async event pipelines using RabbitMQ and gRPC for inter-service communication; integrated Google Gemini LLM to power an AI-driven civic issue chatbot.
- Built a Flutter mobile app and Vue.js admin portal with JWT RBAC, backed by PostgreSQL and Redis across complaint, content, and community services.

Corporate Expense Tracker

Node.js, Express.js, PostgreSQL, Vue.js 3, Pinia, Chart.js, Vitest

- Developed a full-stack expense management system with session-based auth and RBAC for multi-level approval workflows, with full test coverage across models, controllers, routes, and middleware using Jest and Vitest.
- Designed a normalized PostgreSQL schema across expense, trip, and audit tables; built RESTful APIs with Express-Validator for input sanitization.
- Built a Vue.js 3 SPA with Pinia state management and Chart.js dashboards for real-time spend analytics and approval state transitions.

TECHNICAL SKILLS

- **Languages & Frameworks:** Python, Go, Rust, JavaScript, TypeScript, SQL, Node.js, Express.js, React, Next.js, Vue.js, Flutter/Dart
- **Databases, Platforms & Tools:** PostgreSQL, SQLite, Redis, RabbitMQ, Docker, Kubernetes, Tauri, gRPC, Nginx, Git, Linux