

# JEEVAKRISHNA VETRIVEL

Thanjavur, Tamil Nadu, India

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## PROFESSIONAL SUMMARY

Software engineer with experience building and shipping production-grade, customer-facing applications end-to-end. Proficient in **Python**, **TypeScript/JavaScript** across modern frontend (**React**, **Next.js**) and backend (**Node.js**) systems. Strong foundation in **testing methodologies**, **API and automation testing**, **CI/CD pipelines**, and systematic **edge-case analysis**. Experienced integrating **AI/LLM tools** into reliable products with a **quality-first, performance-driven** mindset.

## EXPERIENCE

- **Frontend Developer Intern** Remote  
Oct 2024 – Jan 2025  
*TRYMBKM (Stealth Mode Startup)*
  - Implemented production-grade **React + TypeScript** components and refactored legacy code, reducing UI-related issues by **20%**.
  - Introduced reusable UI primitives (forms, layouts) and optimised render paths, improving bundle size and perceived load time.
  - Improved frontend error handling and edge-case management for increased application stability.
  - Collaborated with founders to review pull requests, evaluate technical trade-offs, and document frontend architecture decisions.
- **Video Game Developer & Founder** Remote  
Mar 2024 – Present  
*VoltaVerse Studio*
  - Designed and implemented game UI using **React and TypeScript**, optimising animation and render loops to sustain **60fps** on mid-range devices.
  - Built **AR/VR experiences** for neurodivergent learners, iterating on interaction patterns based on user and educator feedback.
  - Launched Instagram and Snapchat AR effects with **40K+ plays**, using analytics to guide updates and performance optimization.
  - Managed end-to-end product development including UI, logic, performance tuning, and deployment across multiple platforms.
- **Full-Stack Developer** Remote  
Apr 2022 – Present  
*Freelance*
  - Delivered full-stack applications using **React/TypeScript** frontends and **Node.js / Python** backends for multiple clients.
  - Integrated third-party services (payments, analytics, authentication) with robust retry logic and defensive error handling.
  - Designed RESTful APIs, database schemas, and CI/CD pipelines for production-ready systems; maintained **99.9% uptime** across deployments.
  - Worked directly with clients to gather requirements, ship features quickly, and maintain long-term system reliability.

## PROJECTS

- PromptPDF — Production AI/LLM RAG System** Live | GitHub
  - Full-stack RAG application: React/TypeScript frontend with real-time streaming, Python FastAPI backend, Pinecone vector database.
  - Integrated **OpenAI LLM APIs** with production-grade error handling, achieving **95% query accuracy** and **91.9% uptime**.
  - Implemented async request handling, Redis caching, and monitoring dashboards for performance optimization and reliability.
  - Deployed to production (Vercel) with Docker containerization and GitHub Actions CI/CD pipelines.
- FoodFocus — AI Food Recognition & Real-Time Tracking** GitHub
  - End-to-end consumer app: React frontend, Node.js backend, PostgreSQL database, Vision Transformer (ViT) ML model integration.
  - Built real-time food recognition using **image processing and AI inference**, integrated calorie tracking and user analytics.
  - Designed responsive UI for mobile-first experience; implemented robust API design for ML model communication.
  - Deployed to App Store and Play Store; optimized app performance for consumer-grade reliability.
- Zuzu Programming Language — Compiler & Runtime** GitHub
  - Full compiler pipeline: lexer, recursive descent parser, AST generation, runtime interpreter with error recovery.
  - Demonstrated deep understanding of language design, tokenization, parsing, and runtime execution.

## TECHNICAL SKILLS

- Frontend:** React, Next.js, React Native, TypeScript, HTML, CSS, Tailwind CSS, Redux, Zustand, React Query
- Backend:** Node.js, Express.js, Python, FastAPI, Flask, RESTful APIs, WebSockets, real-time features
- Databases:** PostgreSQL, MySQL, MongoDB, Redis, vector databases (Pinecone, Weaviate)
- AI/ML Integration:** LLM APIs (OpenAI, Anthropic), prompt engineering, agent workflows, ML model integration
- DevOps & Infrastructure:** Docker, containerization, GCP (Compute Engine, Cloud Run, Cloud Storage), AWS S3, CI/CD (GitHub Actions)
- Languages:** Python, JavaScript, TypeScript, SQL, C#
- Tools & Practices:** Git/GitHub, Supabase, DrizzleORM, Clerk, unit testing, code reviews, agile development
- Mobile:** App Store & Play Store deployment, mobile-first responsive design, performance optimization

## EDUCATION

- **Bachelor of Technology (B.Tech) in Information Technology** Expected Graduation: May 2026  
Oct 2022 – Present  
*SASTRA Deemed University, Thanjavur, India*