Vishnu Vinod

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EDUCATION

- **Indian Institute of Technology, Madras** — Madras, India
  *B.Tech and M.Tech in Engineering Design; CGPA: 8.17 (JEE Adv **3278** AIR)* — *July 2020 – May 2025*

PROFESSIONAL EXPERIENCE

- **Circular** — Remote
  Founding Software Engineer (#2) — *Feb 2025 - July 2025*
  - Built AI pipeline to auto-label items and generate product shots on virtual models, cutting listing time by **60%**
  - Added **agentic** interface with approval flows to apply filters, view, bulk-update products using natural language
  - Led TypeScript migration; built a dynamic table system with configurable filters, removing per-table logic

- **NatWest** — Bengaluru
  Quant Analyst Intern (Received PPO) — *Summer 2024*
  - Engineered a high-precision random sequence generator in Python and C++ for Monte Carlo simulations.
  - Improved convergence rates by **20%**, reduced bias by **24%** through extensive benchmarking and optimisation.

- **Vimaan** — Bengaluru
  Software Intern — *December 2023 - May 2024*
  - Led migration from SQL to graph-based architecture, building Spring Boot microservice powering workflows
  - Migrated queries from SQL to Cypher, reducing latency of a crucial workflow by **80%** (2s to 0.4s)
  - Analysed graph data patterns, optimised Cypher queries through profiling, data modeling, and indexing

- **Commenda** — Bengaluru
  Software Intern (Received PPO) — *Summer 2023*
  - Built company blog, and glossary using Next.js, with Notion as CMS, increased website engagement by **2.2x**.
  - Devised key part of onboarding flow using puppeteer achieving **88%** (25s to 3s) reduction in request time [blog]
  - Deployed scheduler to auto-log user progress into Google Sheets, Mail, eliminating repetitive manual workflows

- **Viak** — Remote
  Software Intern — *Dec 2022 - May 2023*
  - Built NFT widget (↑**40% engagement**), admin dashboard (↑**30% efficiency**); integrated Stripe payments.
  - Converted Figma designs and wireframes into high-quality React code; built a reusable front-end UI library.

- **Accelerate** — Chennai
  Backend Software Intern — *Jan 2022 - May 2022*
  - Built back-end for a restaurant chain's food ordering system in Express.js, supporting **50k+ daily customers**
  - Migrated the POS software from **monolithic to microservices** based architecture following MVCS pattern.
  - Developed CRUD APIs, implemented JWT auth; used Electron.js, CouchDB, and Swagger for documentation.

PROJECTS

- **Uxie:** Created a PDF reader with annotations, note taking, collaboration, AI chat, and flashcard; used by **500+ students**. Placed **2nd** in IITM Hackathon '23 for the MVP, and **2nd** in IITM Buildschool '23. [blog]
- **FMHY:** Built wiki, search, and discord bot for a Reddit community, serving **25,000+ daily active users**.

HACKATHONS & INITIATIVES

- **Mentora:** Built acad portal for queries, notes, course data (scraped from IITM sites); Placed **3rd** in Buildschool '22
- **Ping:** Built campus safety app streaming student alerts via **SSE** to dashboard with incident location, cameras feeds
- **ML Hackathon:** Placed **2nd** out of 100+ attendees at SRM University's ML hackathon with 97.24% accuracy
- **Shaastra IITM:** Built registration site in Next.js for 3,000+ students nationwide with Google Sheets as backend
- **Tensors (Social Impact Club) IITM:** Led team of 6 developers building web solutions for NGOs, government initiatives. Built grievance portal for the Idukki constituency (**1.2M+ citizens**), managed full development lifecycle

SKILLS

Languages: TypeScript, JavaScript, Python, Java, SQL, Cypher, HTML, CSS

Technologies: Node, Express, React JS, Next JS, Nest JS, Redis, Neo4J, MySQL, PostgreSQL, MongoDB, Git, Mocha, Chai, Mockito, Junit, Puppeteer, AWS, Docker, LLM APIs, React Native, Expo, Electron, SpringBoot