# Vishnu Vinod

vishnuu.com | github.com/zeus-12 | vishnuu.com/projects

## EDUCATION AND SCHOLASTIC ACHIEVEMENTS

| Program | Institution | %/CGPA | Year of Completion |
|---|---|---|---|
| Dual Degree in Engineering Design | Indian Institute of Technology, Madras | 8.13 | 2025 |
| Class XII (CBSE) | SFS Public School, Kottayam | 95.8 | 2020 |
| Class X (CBSE) | Bharatiya Vidya Bhavan, Calicut | 92.2 | 2018 |

- JEE Advanced AIR **3278** (2.5 lakh candidates)
- JEE Mains AIR **4104** (11 lakh candidates)
- KEAM[1] AIR **105** (1 lakh candidates)

## PROFESSIONAL EXPERIENCE

**NatWest**
*Quant Analyst Intern*
*(May '24 – July 24)*
*(Received PPO)*
- Developed a **highly accurate random sequence generator**, enhancing numerical simulation convergence.
- Performed comparative analysis, validating algorithm efficacy against existing methods through bias measurements.
- Increased convergence rates by **20%** and reduced bias by **24%**, significantly outperforming previous methods.

**Vimaan Robotics**
*Software Intern*
*(Dec '23 – May '24)*
- Developed a user-agnostic microservice using Spring Boot, Java, Neo4j, Memgraph, and conducted unit testing.
- Optimised Cypher queries through profiling, data modelling, and indexing to ensure efficient data retrieval.
- Migrated SQL queries to Cypher, achieving an **80% performance improvement** in a critical workflow (from 2s to 0.4s).

**Commenda**
*Software Intern*
*(May '23 – July '23)*
*(Received PPO)*
- Built a company blog, and glossary using Next JS, Nest JS, Notion API as CMS, improved website engagement by **2.2x.**
- Devised a critical part of the onboarding and payment flow using Puppeteer achieving **88%** reduction in latency.
- Deployed scheduler for automated metric loggings to Google Sheets and Email, drastically reducing manual efforts.

**Viak**
*Software Intern*
*(Dec '22 – May '23)*
- Created an NFT display widget increasing engagement by **40%**, and project settings page halving support requests.
- Integrated payments using Stripe, built a dedicated admin dashboard, improving order management efficiency by 30%.
- Converted Figma designs and wireframes into high-quality React code; built a reusable frontend UI library.

**CoursePanel**
*Start-up Cofounder*
*(July '22 – May '23)*
- Built a university portal, chatbot to aid **3300+** students to make better academic decisions in selecting courses.
- Developed an Academic Operations Platform, for faculty to be above **35% more efficient** in program planning.
- Consulted a professional academy on curriculum designing and syllabus for teaching software development.

**Accelerate**
*Software Intern*
*(Jan '22 – May '22)*
- Built the back-end for a restaurant chain's food ordering system in Express.js, supporting over 50,000 daily customers.
- Migrated the POS software from **monolithic to microservices** based architecture following MVCS pattern.
- Developed CRUD APIs, implemented JWT authentication; used Electron.js, CouchDB, and Swagger for documentation.

## PROJECTS

**AI Powered PDF Reader**
- Built a PDF reader app with annotation, note-taking, OCR, TTS, and multi-user collaboration, with **300+ active users**.
- Integrated AI-driven chat with PDFs, flashcard generation with feedback, text auto completion enhancing user learning.

**r/FMHY Wiki Page**
- Built a comprehensive wiki page, search, Discord bot for a Reddit community, serving at peak **25K+ daily active users.**
- Periodically scraped, sanitised, and stored data from their GitHub page, enhancing overall data reliability, accessibility

**JMT Shaastra**
- Collaborated with Shaastra[5] IITM to develop a website for the Junior Make-A-Thon event using Next.js.
- Facilitated the seamless registration of over **3,000** students nationwide, utilising Google Sheets as the database.

**Emergency alert mobile app**
- Built an emergency-alert mobile app, dashboard for on-campus students utilising Expo, Next JS, Express JS, MongoDB.
- Constructed an Admin Dashboard with real-time location tracking & proximity-based camera feeds triggered by the user.

**Gamified Daily Tasks Assistant**
- Developed a mobile app encouraging users to complete daily tasks using gamification techniques, using Expo, Firebase.
- Integrated a personalised GPT-4 powered doctor assistant, leaderboard, RSS feeds, dynamic streak, and level system.

## SKILLS

**Proficient**: Typescript, JavaScript, Python, Node, Express, MongoDB, MySQL, Puppeteer, Cheerio, Git, GitHub, HTML, CSS, React, Next JS, React Native, Figma, Tailwind| **Intermediate**: Java, Spring Boot, Nest JS, SQL, Firebase, Redis, Neo4j, AWS, Mocha, Chai, C, JUnit, Mochito, Electron

## POSITIONS OF RESPONSIBILITY

**Tensors[6]**
WebOps Head ('22–'23)
- Coordinated and led projects undertaken by Tensors[6] to fund its social campaign project driving **25%** increase in revenue.
- Built web and mobile grievance portals for MP[7] serving Idukki Constituency benefiting **12 Lakh+** citizens with needs.
- Conceptualised a wireframe, led the product development team, and grew the team size to 6 members

**Saarang[8]**
DevOps Coord ('21 –'22)
- Updated and modified Saarang[8] website portal used by over **1,80,000** students from **500+** colleges all around India.
- Built the Saarang '21 leaderboard app, updating points real-time using PostgreSQL, Express, React, Sockets.

## EXTRA-CURRICULAR AND CO-CURRICULAR ACTIVITIES

**Uxie**
- Built an AI-enhanced PDF reader, winning **2nd** place in IITM Hackathon[3] '23 for the prototype, and **2nd** in Buildschool[4] '23.

**Mentora**
- Built Mentora, an academic portal for students to ask doubts, upload notes, course details scraped from IITM website.
- Won **3rd** in Buildschool[4] '22, Used Next JS, MongoDB, Redis, Azure Blob Storage, Google Sheets API, Puppeteer, Cheerio.

**Comportal**
- Built Comportal, a complaint portal app, winning **3rd** among 80+ students in a 24-hour hackathon by IITM Techsoc Club

**ML**
- Placed **2nd** in a 12-hour ML-Hackathon conducted by SRM University, attended by over 100 participants.
- Achieved an outstanding accuracy of **97.24%,** involving data cleaning, training using the RandomForestClassifier model.

**Others**
- Chess FIDE rating 1609, District Champion.
- Hostel Basketball Athlete

**1**-Kerala Engineering and Medical Entrance Examination, **2**-Daily Active Users, **3**-24-hour hackathon conducted by IITM Techsoc club among 100+ annually, **4**- 10-week hackathon by IITM Techsoc club involving 10 teams chosen from 20+ teams, **5**-IITM's annual technical festival, **6**-An NGO run by the students of IITM, **7**-Member of Parliament, **8**-IITM's annual cultural festival