

WORK EXPERIENCE

Senior Software and AI Engineer | Preplaced

Jan 2024 - Present

- Architected and developed **end-to-end web applications** using **React, Next.js, FastAPI, and Python**, implementing modular frontend components, optimized API design, and robust data flow across the stack
- Implemented a **learning session feature** using **LiveKit**, enabling users to engage in **real-time voice conversations** with LeecoAI across various learning topics.
- Developed a robust **STT → LLM → TTS pipeline** integrating **speech recognition, prompt processing, and speech generation** to mimic a real-time human mentor experience.
- Developed **AI-driven** systems integrating **LLMs, custom prompt pipelines, and RAG-based retrieval layers**, leveraging vector databases and caching to deliver low-latency, contextually relevant responses.
- Engineered **LeecoAI Mentor, a React-based browser extension** leveraging DOM parsing and event listeners to dynamically extract problem context from platforms like **LeetCode, GeeksforGeeks, and YouTube**.
- Integrated **LLM-powered inference pipelines** with optimized **prompt construction and context retrieval**, enabling real-time code explanations and adaptive learning recommendations directly within the user interface.
- Designed and optimized a modular prompt-engineering framework**, improving consistency of AI responses across multiple learning paths and reducing hallucinations by ~20%.
- Developed a **robust A/B experimentation framework** to evaluate and optimize AI models and prompting strategies, **running 8-10 concurrent tests** that improved **trial conversion** rates from **7% to 12%**.
- Coordinated successful product releases**, managing dependencies and ensuring on-time delivery with zero critical issues.
- Mentored intern developers**, fostering continuous learning and improvement.

Full Stack Developer | Tensorgo

Jan 2023 - Dec 2023

- Engineered **end-to-end product features** using the **MERN stack (MongoDB, Express.js, React, Node.js)**, ensuring seamless integration between client and server layers.
- Developed modular, reusable React components with optimized rendering patterns to improve UI performance.
- Designed and implemented **RESTful APIs** with **Express.js** and **MongoDB**, focusing on efficient data modeling, indexing, and query optimization.
- Collaborated with **cross-functional teams** to deliver **scalable, production-grade full-stack solutions** aligned with product and performance goals.

PROJECTS

- LeecoAI** - An AI-powered learning platform that provides personalized learning paths on any topic, along with real-time guidance and interactive lessons to help users learn faster and more effectively
- LeecoAI Extension** - A browser extension that integrates LeecoAI directly into coding and learning platforms, offering context-aware assistance, instant explanations, and session-based guidance without switching tabs.
- EmytPlus** - A B2B analytics dashboard for sales teams, HRs, and managers to analyze Zoom and other meeting platforms, providing insights through metrics on engagement, performance, and communication patterns.
- Others** - StreamOn, Express CRUD Generator, Omni Food

ACHIEVEMENTS

- Awarded Employee of the Month** twice in a row for consistently delivering high-impact features and exceeding performance expectations.
- Reduced coding bugs by 50%** and technical debt by implementing robust code review processes at Preplaced.
- Awarded for outstanding contribution** to a major release at Preplaced, recognizing exceptional performance and impact in delivering a critical project.
- Increased conversion rates** through A/B testing strategies implemented in collaboration with Product Managers at Preplaced.

TECHNICAL SKILLS

- Languages:** JavaScript, TypeScript, Python
- Frontend Development:** React, Redux, Next.js, Webpack, HTML5, CSS3, Sass, TailwindCSS, Material UI, Micro Frontends
- Backend Development:** Node.js, Python, FastAPI, Express.js, MongoDB, Mongoose, Firebase, Socket.IO, Swagger, Microservices
- AI & Machine Learning:** Generative AI (LLMs, RAG, LangChain, OpenAI API), Vector DBs, Prompt Engineering
- Version Control, Testing & Tools:** Git, GitHub, Bitbucket, Jest, SonarQube, JIRA, Agile/Scrum methodologies

EDUCATION

Bachelor of Technology in Computer Science, JUET (Guna)

Aug 2019 - March 2023