

Hrugved Pawar

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Education

University of Maryland, College Park

August 2023 – May 2025

Master of Engineering in Software Engineering

- **Coursework:** Software Engineering, AI & Deep Learning, Cloud Security, Software Design & Implementation

Vellore Institute of Technology, Vellore

August 2018 – July 2022

Bachelor of Technology in Computer Science and Engineering

- **Coursework:** Data Structures and Algorithms, Operating Systems, Database Management Systems, Machine Learning

Work Experience

Carnegie Mellon University

June 2024 – August 2024

Software Development Engineer, Research Assistant

- Architected a distributed goal-tracking platform using Vue.js and REST APIs, implementing real-time feedback systems that enhanced student progress tracking and learning metrics by **35%** while handling **10,000+** concurrent users.
- Spearheaded interface redesign collaboration with the UX team, incorporating automated data synchronization and Chart.js visualizations, resulting in **40% increased user engagement** and streamlined progress monitoring.

Freecharge Payment Technologies

August 2022 – July 2023

Software Development Engineer

- Implemented a comprehensive security framework using **TypeScript** and Node.js, incorporating real-time zip code verification against blacklisted regions, reducing fraudulent account creation by 23% while maintaining system scalability for **500K+ daily active users**.
- Built a high-performance two-factor authentication system using TypeScript, achieving **40% faster** authentication through optimized API integrations and enhanced security protocols.
- Modernized the employment verification module with intuitive UI features using **React** & Chakra UI, resulting in a **28% decrease** in application dropout rates and enhanced user engagement metrics.
- Transformed the debit card onboarding experience using TypeScript and Node.js, achieving a **22% boost in user retention** through streamlined workflows and enhanced dashboard functionality.

Persistent Systems

May 2021 – July 2021

Software Engineer Intern

- Constructed a high-performance blood donation platform using PHP and MySQL, achieving 40% faster data retrieval through advanced SQL indexing and schema optimization.
- Orchestrated cloud migration to **AWS** using **S3** and **EC2**, implementing automated scaling and security controls that reduced hosting costs by 20% while maintaining 99.99% availability.

Projects

Clarity: AI Assistant for Developers

Dec 2024 – Jan 2024

- Pioneered an **AI-powered** GitHub assistant using **Next.js 14** and **RAG** pipeline with LangChain, integrating Clerk authentication and Stripe payment processing while maintaining sub-100ms response times and 99.9% system availability.
- Synthesized an intelligent code review system leveraging GitHub's API and AssemblyAI, for **automated documentation analysis** and real-time Q&A capabilities.

VocabVenture: Language Learning Platform

August 2024 – Dec 2024

- Coordinated a **5-member team** in building a scalable language learning platform using Next.js 14 and **microservices architecture**, successfully integrating Elevenlabs AI for dynamic multilingual voiceovers across 5+ languages.
- Established a comprehensive learning management system using DrizzleORM and **PostgreSQL**, featuring real-time leaderboards and reward mechanisms that improved lesson completion rates by 25%.

Skills & Certifications

Programming Languages: Python, TypeScript, JavaScript (ES6+), Java, C++, SQL, HTML5

Frontend Development: React.js, Next.js 14, Vue.js, TailwindCSS, Redux, Shadcn UI, MUI, REST APIs, GraphQL

Backend Development: Node.js, Express.js, Spring Boot, PHP, GraphQL APIs

Databases & Cloud: PostgreSQL, MongoDB, MySQL, AWS (EC2, S3, Lambda), NeonDB, Firebase, Firestore, Oracle Database, Redis, Snowflake, MS SQL

DevOps & Tools: Docker, Kubernetes, Jenkins, Git, GitHub Actions, GitLab CI/CD, Postman, Agile/Scrum

Certification: AWS Certified Cloud Practitioner (CLF-01)