Vineet Agarwal

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Summary — Software Engineer with 2+ years designing and delivering production-grade systems across mobile, backend, and cloud. Proven record of improving system performance, database throughput, and user experience at scale. Skilled in Python, Next.js, React Native, and AWS. Currently pursuing an M.Eng. in Software Engineering at the University of Maryland, deepening expertise in distributed architecture, AI integration, and cloud security.

Skills

Languages Python, JavaScript/TypeScript, C++, GO, SQL

Frontend React.js, React Native, Next.js, Tailwind CSS

Backend Node.js, Express, REST APIs, gRPC, WebRTC

Databases MongoDB, PostgreSQL, Faiss, Pinecone, Redis

DevOps AWS, Azure, Kubernetes, Docker, CI/CD

AI/ML LangChain, OpenAI APIs, RAG, Hugging Face

Core CS Data Structure, System Design, Software Architecture, Embedded Systems, OOP

Tools Firebase, Git, Selenium, Redux Toolkit, Pytest

Experience

Svipes   **Jul 2024 – Dec 2024**
Full Stack Developer
- Developed a cross-platform social-media app with 50 interactive screens, built with React Native + Redux Toolkit.
- Overhauled the Reels module — implemented frame-level caching, asynchronous video loading, and GPU-driven animations to cut playback stutter by 40 % and reduce initial load by 1.3 s.
- Designed reusable UI kits from Figma specs, streamlining future feature rollout and halving duplication across the codebase.

Xelpmoc Design and Tech Limited   **Nov 2022 – Apr 2024**
Software Developer
- Delivered 30+ React Native screens for GreenLight Credentials Wallet (iOS & Android), integrating 15+ blockchain webhooks for instant credential verification.
- Built and deployed twin apps for a senior-living network serving 70+ users daily; boosted coordination efficiency 35% through real-time task sync and notification pipelines.
- Led architecture design of a tourism-services platform (React + React Native) — cut production bugs 40%, accelerated feature velocity 25%.
- Optimized SQL & caching pipeline: consolidated nested joins, indexed high-frequency tables, and added Redis caching, reducing query time from 75s → ¡ 10s and quadrupling API throughput.
- Designed a real-time interview system using WebRTC + Socket.IO, sustaining 100 + live video sessions with ¡ 200 ms latency on mid-tier hardware.

IIIT Hyderabad   **Jun 2022 – Aug 2022**
Summer Internship
- Automated multilingual data extraction using Python + Selenium to curate datasets for regional-language Wikipedia contributions.
- Processed 100+ articles and collaborated with NLP teams to raise emotion-classification accuracy by 15%.

Education

University of Maryland, College Park
Master of Engineering , Computer Software Engineering   *Jan 2025 - Dec 2026*
- Minor in Cloud Engineering
- Relevant Coursework: Software Design, Cloud Computing, Virtualization, Cloud Security

Projects

AI Chatbot for Plywood Business (Github)   **Sept 2025 – Present**
- Built an AI assistant using FastAPI, LangChain, and OpenAI/Hugging Face APIs to automate product queries.
- Designed vector search and caching with FAISS + Redis, cutting latency and lookup time by 70%.

Collaborative AI Whiteboard (Github)   **Jun 2025 – Present**
- Developed a real-time infinite-canvas app supporting multi-user drawing, live cursors, and event batching via WebSockets.
- Structured as a TypeScript monorepo (React + Node.js) optimized for low-latency collaboration and smooth rendering.