

Keshav Bhagat

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EDUCATION

University of Michigan

May 2026

Bachelor of Science in Computer Science, Minor in Business (GPA: 3.829/4.0)

Ann Arbor, MI

- **Relevant Coursework:** Introduction to Operating Systems; Database Management Systems; Web Systems; Intro to Artificial Intelligence; Data Structures and Algorithms; Foundations of Computer Science; Computer Organization

WORK EXPERIENCE

nugget

June 2025 – Present

Co-Founder and Full-Stack Software Engineer

Kolkata, India

- Architecting "nugget", an AI-powered micro-learning platform (Flutter, FastAPI, PostgreSQL) delivering GPT-4o-generated bite-sized lessons, adaptive quizzes, and progress analytics
- Containerized backend deployed on a Hostinger VPS via Docker and CI/CD, with JWT/Firebase authentication, CORS hardening, and modular microservices for topics, quizzes, and media
- Released closed TestFlight beta of cross-platform Flutter app with Google Sign-In and Provider state management
- Implemented a 4-tier importance \times 5-level familiarity engine to dynamically adjust lesson difficulty and quiz generation based on learner's prior knowledge

Dream11

June 2024 – July 2024

Software Development Intern

Mumbai, India

- Developed a comprehensive release management site using Remix with Prisma ORM and MySQL, facilitating tracking and creation of Dream11 app releases with detailed build history and release information
- Designed and implemented the frontend with Remix and React, incorporating Shadcn, Tailwind CSS, and various custom hooks to create dynamic and user-friendly components, enhancing the user experience
- Executed tests via Callstack's Reassure to validate functionality and performance of custom React Native components

Web Spiders

June 2023 – July 2023

Software Engineering Intern

Kolkata, India

- Built "EmpowerMeAI", a job-seeking and career-advising chatbot tailored for job seekers in Kolkata, powered by the GPT-3.5 turbo 16k model
- Engineered the application in Python with an intuitive CLI interface, harnessing Glassdoor and Indeed APIs to dynamically fetch job listings based on users' skills and expectations

PROJECTS

PromptTube · AI-Powered Chrome Extension for YouTube

May 2025 – Present

- Built and maintained PromptTube (600 + Web Store users), a Gemini-driven sidebar that lets viewers chat with any YouTube video, receive real-time summaries/answers, and jump to precise timestamps via on-the-fly transcript parsing
- Injected a resizable, theme-aware React component into YouTube's DOM using content scripts, postMessage channels, and localStorage persistence to deliver a drag-to-resize UX
- Engineered a robust transcript pipeline with XPath extraction, dual-format regex timestamp parsing, and custom LRU caching in a modular Manifest V3 TypeScript codebase, bundled via Webpack with comprehensive error handling

Network File Server

April 2025

- Engineered a multi-threaded TCP file server in C++ exposing a hierarchical file system over a custom FS protocol
- Implemented fine-grained concurrency with Boost mutexes/shared-mutexes—per-inode reader/writer locks, hand-over-hand traversal, and deadlock-free deletion—to safely serve many simultaneous clients
- Designed on-disk inodes, directory entries, and block-allocation logic with crash-consistent write ordering, enabling reliable reads/writes and efficient block reclamation

DealDepot

May 2024 – June 2024

- Developed a fully functional e-commerce website using the MERN stack (MongoDB, Express, React, Node.js)
- Implemented features including pagination, product filters, and a Stripe-based checkout for secure payments
- Created an admin dashboard for managing products, orders, reviews, and users, and integrated sales charts for analytics

TECHNICAL SKILLS

Languages & Frameworks: C++, Python (FastAPI), Dart (Flutter), TypeScript (React, Remix, Next.js, Express), Java
DevOps & Infra: PostgreSQL, MySQL, MongoDB, Firebase, Docker, Git, AWS, Prisma, SQLAlchemy, Postman, CI/CD