

Parthav Elangovan

Amherst, Massachusetts

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Education

University of Massachusetts Amherst

Jan 2026 - May 2027 (Expected)

M.S. Computer Science

The University of Texas at Dallas

Aug 2023 - Dec 2025

B.S. Computer Science | Major Honors with Distinction

Work Experience

Cerbyl Pvt Ltd

June 2025 - Present

Founder/Full-Stack Engineer | Live: <https://cerbyl.com>

- Architected and deployed an end-to-end AI learning platform featuring AI tutor chat, personalized learning paths, smart notes, flashcards, quizzes, analytics, and gamification and shipped with Dockerized production infrastructure, Nginx and AWS configs.
- Implemented a multi-agent AI architecture using RAG (Google Gemini + vector retrieval) to generate adaptive roadmaps and tutor responses.
- Engineered scalable architecture with React + Tailwind frontend and FastAPI backend, backed by SQLite, Chroma-based vector retrieval, and Neo4j knowledge graphs.

Ng's Labs

Aug 2025 - Present

Research Assistant

- Contributed to a multimodal argumentation dataset by annotating 1000+ memes with logical fallacy types and graph-structured reasoning flows, supporting research on LLM-based meme understanding.

University of Texas at Dallas, Richardson

Apr 2024 – Dec 2025

Community Tutor/Mentor

- Tutored 500+ students in Discrete Mathematics through structured sessions and custom problem sets, improving conceptual understanding of proofs, graph theory, and combinatorics.

Sunshine, Chennai

Sep 2021 – Feb 2023

Student Developer and UX lead

- Rebuilt school's legacy web platform from scratch after identifying critical navigation and engagement issues, increasing parent/student usage by 33% and eliminating 60% of support requests.
- Designed and implemented full-stack solution (React, Node.js, MySQL) based on user feedback from 20+ parents, replacing confusing multi-page flows with streamlined single-page interface.

Projects

Capstone Cloud – **Project Link :** <https://github.com/mrazo/CapstoneCloud>

May 2025 - Aug 2025

- Developed and deployed a web application (React, FastAPI, PostgreSQL, Docker) on a VM, implementing secure SAML SSO + JWT auth enabling secure access for 500+ students and faculty across 100+ project teams
- Automated weekly statistics reporting for 100+ project teams using role-based dashboards, reducing faculty reporting time by 67%.

Nrve Nest – **Project link :** <https://github.com/gaurangdhanani/NrveNest>

April 2025

- Won "Best Design" from 100+ teams for mobile mental wellness app (React Native + FastAPI) featuring gesture-based mood tracking, guided breathing exercises, and motivational games to help users regulate emotions.

Skills and Certifications

- **Programming Languages:** Python, Java, C++, JavaScript, TypeScript, HTML, CSS
- **Frameworks & Libraries:** React, React Native (Expo), Node.js, FastAPI, Vite, NumPy, scikit-learn
- **Database, Infrastructure and Tools:** Docker, Git, Linux, PostgreSQL, MySQL, Firebase, AWS, Neo4j, Nginx