Tharunya Sundar

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EDUCATION

Binghamton University, SUNY, Thomas J. Watson College of Engineering and Applied Science	**New York, USA**
Master of Science in Computer Science	*December 2025*
Cumulative GPA: 3.437/4.00

SASTRA University	**Tamil Nadu, India**
Bachelor of Science in Information and Communication Technology	*August 2024*

PROFESSIONAL EXPERIENCE

Haven AI - Wellness App, PM Accelerator	**Remote, USA**
Software Engineer Intern	*May 2025 - Present*
- Spearheaded development of *Haven AI*, a cross-platform React Native mobile app that delivers proactive behavioral support to help users quit vaping, targeting 40% user download rate within the first 3 months post-launch
- Delivered a functional MVP in under 8 weeks, integrating Firebase Authentication, dynamic chat interface and custom components to simulate GPT-4o-powered messaging, with trigger logging, reflections, and gamified progress tracking

CRAFT Lab	**Binghamton, NY**
Project Assistant - AI Benchmarking Research	*February 2025 - May 2025*
- Curated and structured JSON dataset 1,856 GMAT questions across Verbal, Quant, and Data Insights sections, incorporating multiple modalities (text, math, tables) for use in large-scale LLM evaluation
- Executed Tree-of-Thought prompting pipelines to benchmark GPT-4o, Claude-3, and Gemini on reasoning breakdowns; observed up to 33% accuracy improvement and enabled step-wise analysis of model failures for NeurIPS 2025 paper

Verzeo	**Tamil Nadu, India**
AI Project Intern	*August 2022 – December 2022*
- Created a real-time face mask detection system using YOLOv5, and optimized it with MobileNetV2 for lightweight, edge-friendly inference
- Hosted the application on Streamlit Cloud, enabling scalable, live demos with real-time OpenCV-based input capture

PROJECTS

Patient CRM Dashboard	*April 2025*
- Architected a full-stack, cloud-hosted CRM dashboard using Next.js, React, Node.j, and Cloudflare workers to streamline patient intake workflows for healthcare front-desk staff
- Implemented CSV upload, inline data editing, and real-time validation with secure REST API sync, robust input checks, schema enforcement, and actionable error feedback using Material UI and Intercom

ChatApp	*April 2025*
- Developed a real-time chat application with user authentication, presence tracking, and persistent message storage, enabling seamless one-on-one and group messaging.
- Engineered a fault-tolerant backend using Redis pub/sub for message broadcasting and Nginx load balancing to ensure high availability across distributed server instances.

Library Management System	*November 2024*
- Wrote comprehensive unit tests using Mocha and Chai, covering API logic, edge cases, and data validation.
- Utilized in-memory MongoDB instances to ensure fast, isolated testing environments and maintain test reliability across CRUD operations and schema checks.

PUBLICATIONS AND ACHIEVEMENTS

NeurIPS 2025 (Under Review)	*May 2025*
- Are LLMs Ready for English Standardized Tests? A Benchmarking and Elicitation Perspective

CodeFest Hackathon, [Winner] *conducted by ColorStackBU*	*September 2024*
- Developed a real-time campus event discovery platform with the best UI design, implementing secure authentication using JavaScript, HTML, and CSS

LEADERSHIP EXPERIENCE

Binghamton University, International Student and Scholars Services (ISSS), *Leadership Volunteer*	*August 2024*
- Assisted 60+ new international students, Led four campus tours, provided detailed insights on key services like health counseling, academic buildings, departments, and addressed student questions on academic life at Binghamton University

TECHNICAL SKILLS

Languages: Python, C/C++, JavaScript, React, SQL, MongoDB, HTML5, CSS3, TailwindCSS
Frameworks & Libraries: React.js, Next.js, Node.js, Express.js, FastAPI, Socket.io, TailwindCSS, Material UI, Streamlit, TensorFlow, Keras, Scikit-learn, OpenCV, yolov5, Pandas, NumPy, Zod, Mocha, Chai
Databases: MongoDB, MongoDB Atlas, Redis, NoSQL, SQL
Tools & Platforms: Firebase, Git/GitHub, Intercom CRM, REST API, JWT, Nginx, Cloudflare Workers
Certifications: Advanced Learning Algorithms , The Complete JavaScript Course from Zero to Hero