

Varshil Medidhi

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EDUCATION

Michigan State University

B.S. in Computer Science / **Concentration : Software Development**

Expected Graduation, May 2027

Honors: (x2 Dean's Honors List)

Related Coursework: Data Structures & Algorithms, Objects & Design, Computer Organization & Programming, Object-Oriented

Programming, Statistics & Applications, Differential & Integral Calculus, Discrete Mathematics, Computer Architecture

Clubs & Involvement: Project lead (Imagine software); Advisor (SpartaHack); Team member (A.I Club); DSA Tutor (GDG On campus)

EXPERIENCE

Client : Telus communications

May 2025 - August 2025

Software engineering Intern

- Automated 80% of recurring incidents by designing diagnostic engine runbooks that parsed ticket content via **regex**, classified alarm types, and executed **SQL-based device health checks** to validate system status and close tickets automatically.
- Reduced triage time by 40% by developing standardized remediation workflows with **predefined resolution steps**, accelerating response to common alarms and increasing **first-time resolution accuracy by 30%**.
- Improved operational efficiency by identifying and encoding repeatable alert patterns into runbook logic, **cutting manual intervention by 50%** and enabling consistent incident handling across teams.
- Skills: Python, SQL, Regex, Automation, Incident Management, Communication, System Diagnostics

MSK Infinitum Solutions

May 2024 – August 2024

Software Development Intern

- Built and deployed a full-stack booking platform using the **PERN stack (PostgreSQL, Express.js, React, Node.js)**, implementing **Google OAuth 2.0 and JWT** for secure, scalable authentication and session management.
- Integrated Stripe payment gateway, enabling secure and seamless transactions for service bookings and course enrollments, resulting in **over \$50,000 in revenue generated directly through the platform**.
- Engineered an intelligent scheduling system that calculates availability based on service duration, staff limits, and course hours, eliminating double-bookings and improving resource utilization by **90%**.
- Designed a **responsive and user-friendly UI** for service selection, booking management, and course registration, increasing appointment booking efficiency by **35%** and reducing manual scheduling workload by **20+ hours per week**.
- Skills: MERN Stack, Google OAuth, JWT, Stripe, React, MongoDB, UI/UX, Agile Development

CSE 231 – Introduction to Programming (Python)

August 2023 – April 2024

Undergraduate Learning Assistant

- Mentored 100+ students as an Undergraduate Learning Assistant for **CSE 231: Introduction to Python** at Michigan State University by teaching Python fundamentals, assisting with assignments and projects, conducting weekly help rooms, and grading coursework to support student success and academic performance.
- Skills: Python, Teaching, Mentorship, Communication, Leadership, Data Structures

Imagine Software Club

August 2023 – present

Project Lead

- Worked with a team of 5 to build a real-time chat app backend using **Java** and **Spring Boot**. Implemented **REST endpoints** and **WebSocket** messaging, user auth, and message storage in **PostgreSQL**. Tested with **JUnit** and used **Git** for collaboration; supported ~100 users in class/project demos.
- Built the backend for a habit-tracking app with **Spring Boot** REST APIs. Added login, goal CRUD, daily streak logic, and simple scheduled tasks for rollovers; data stored in **PostgreSQL** and documented with **OpenAPI/Swagger**.
- Skills: Java, Spring Boot, REST APIs, WebSocket, Spring Security (basic JWT), Spring Data JPA, PostgreSQL, JUnit, Git, Swagger

PROJECTS

[LingoBridge](#) | React, Express, Mongodob, Node.js, Stream, Socket.io, WebRTC

- Designed and built a full-stack **MERN** language-exchange platform that matches users by language tags and supports real-time one-on-one video, audio, and chat; integrated **WebRTC + Socket.io** to maintain <200 ms latency for 200+ concurrent callers.
- Skills: Python, scikit-learn, Pandas, NumPy, Machine Learning, Data Cleaning

[Repsense.ai](#) | React.js, Next.js, Gemini API, Convex, VAPI

- Designed and shipped an **AI-driven fitness assistant** that uses **VAPI** for two-way speech, collects user biometrics on the fly, pipes them to **Google Gemini**, and returns a fully personalized diet & workout plan in < 1 s round-trip , all plans versioned and stored in **Convex DB** for instant profile refreshes.
- Skills: MERN, WebRTC, Socket.IO, Real-Time Comm, Full-Stack Dev, Stream API

[Premier League Match Outcome Predictor](#) | Python , Pandas , Numpy, scikit-learn

- Built a **machine learning pipeline** to predict EPL match outcomes using **Random Forests**, engineered **30+** features including rolling averages, and achieved **61%** win prediction precision. Preprocessed and analyzed **1,300+** matches across two seasons, significantly boosting model accuracy with temporal and performance-based insights.
- Skills : Pandas , Numpy, Python , scikit-learn , Machine learning, Random Forest

SKILLS

Programming languages : Python, C, C++ , JavaScript, TypeScript, Java, Assembly, SQL (Postgres)

Tools: React.js, React Native, Next.js, Node.js, Flask, Tailwind, scikit-learn , WebRTC, Socket.io, Pandas, NumPy, Matplotlib, Tkinter, Postman, Git, Github, Chart.js , Three.js, Bootstrap, Jquery , MSOffice, Convex, Clerk, ServiceNow, Jira, Stripe, Firebase, MongoDB, Spring boot, Prisma