Surya Vardhin Gamidi

EDUCATION

Vellore Institute of Technology

Bachelor of Science in Computer Science, Specialization in Data Science

Sep. 2022 - May 2026

Vellore, Tamil Nadu

RELEVANT COURSEWORK

• Computer Networks

- · Data Structures
- Data Analysis
- Database Management
- Artificial Intelligence

• Internet of Things

- Blockchain
- App Development

COMPETITIONS

Design-a-thon - Yantra - Indian Geotechnical Society

March 2024

Winner

Finalist

- Designed and constructed a disaster resistant safe shelter utilizing mechanical contraptions.
- Performed stress and fluid analysis using NumPy and Matplotlib Python libraries.

Ideathon & Hackathon - Code4Change 2.0 - IEEE Social Implications of Technology

February 2025

VIT

VIT

- Ideated a tamper-proof and transparent carbon credit marketplace enabling individuals to invest in green companies.
- Implemented the idea as a native multiplatform app built using React Native.
- Ensured secure transactions through an Ethereum based blockchain and implemented smart contracts.

PROJECTS

Decentralized Messaging App - Recon | Svelte, Capacitor, GunJs, TypeScript

November 2023

- Developed a decentralized mobile app using Svelte and GunJs to ensure private and secure communication without centralized servers.
- Created a custom event-driven protocol in TypeScript for seamless integration and rapid development.
- Made the project into an APK through Capacitor and Android Studio for mobile deployment.

$\textbf{Decentralized Cloud Computing App - Decloud} \mid \textit{Electron, Svelte, IPFS, Docker, TypeScript}$

January 2024

- Developed a desktop application using Electron and Svelte to enable secure, decentralized sharing of computing resources.
- Implemented a two-way communication protocol as a layer over IPFS PubSub for tamper proof records.
- Automated Docker container deployment to dynamically provide client resources based on requests.

TECHNICAL SKILLS

Languages: Python, Svelte, React Native, Solidity, SQL, TypeScript **Developer Tools**: VMWare, Cursor, Azure, Android Studio, Docker

Technologies/Frameworks: Arch Linux, GunJs, Cloudflare, TensorFlow, IPFS, Ethereum/Hardhat

RESEARCH & PATENTS

Journal Publication

Title: Improving the Reliability of NAT Traversal for Pure P2P Connections

November 2024 – Present

ie. Improving the Reliability of NAT Traversal for Pare P2P Connections

In Progress

• A new method to improve the reliability of hole-punching procedures using an ML model for port prediction under various types of NAT.

Patent Application

February 2025 - Present

Title: Discreet Accessibility Real-Time Command System

In Progress

• An embedded IoT based module designed to alert and facilitate easy accessibility of computing devices for senior citizens and people with sensory impairments.

LEADERSHIP / EXTRACURRICULAR

English Literary Association

Autumn 2023 - Present

Vellore Institute of Technology

Board Member - Editorial Head

- Semi Finalist in STEW IITM Saarang
- Provided the association with a web platform to share and improve literary skills of all members.
- Led association of 300+ members to pursue improving literary and oratory skills.
- Organized 4 events for the annual cultural fest Riviera of VIT.