

## EDUCATION

Tamil Nadu, India

Bachelor of Engineering

SIET Tamil Nadu

Computer Science Engineering

Aug 2020 – May 2024

CGPA: 8.12

## EXPERIENCE

### REFERENCE

#### Software Engineer (Backend)

JUN 2024 - PRESENT

##### ChatECG

- Implemented and developed Redis cache mechanism using Proxy design pattern to efficiently update data, reducing average API response time from 4 seconds to 1.5 seconds.
- Implemented API throttling with a maximum limit of 5 calls per 3 seconds to prevent unnecessary API calls, effectively optimizing performance and reducing system load.

#### Software Engineer Intern (Backend)

APR 2023 – JUN 2024

##### ChatECG

- Implemented and optimized dynamic suggestion feature using OpenAI, resulting in a 40% increase in user engagement and a 25% decrease in bounce rate.
- Pioneered the creation of 50,000 lines of asynchronous code independently, leading significant advancements, executing extensive code refactoring, and ensuring rigorous HIPAA compliance for ECG Analyzer and ECG Upload Backend applications.
- Utilized technologies such as **OpenAI**, **Langchain**, **FastAPI** and **Python** to advance electrocardiogram data analysis.

##### Knowledge Graph

- Optimized the knowledge graph for pharmaceutical companies and an American medical center, eliminating ambiguity and redundancy and ensure accurate insights for critical decision-making processes.
- Engineered Python algorithms to systematically handle ambiguity patterns across 5 knowledge graph releases, achieving a 90% reduction in ambiguity in genes and ensuring robust reliability by addressing ambiguity and redundancy in open-source data.
- Utilized cutting-edge technologies: **Python** | **ArangoDB** | **MongoDB** | **Flask** | **Linux**

## TECHNICAL PROJECTS

### DirectHarvest: Connecting Farmers and Buyers:

- Innovated a direct communication platform, empowering farmers to engage directly with customers, utilizing HTML, CSS, JavaScript, PHP, and MySQL.
- Spearheaded the design and implementation phases, resulting in an intuitive platform that streamlined communication and transactions between farmers and customers.

### GPT-clone:

- Conceptualized and executed a GPT-4 replica, incorporating RAG (Retrieval-Augmented Generation) and a cutting-edge Vector Database.
- Implemented advanced algorithms and database structures, achieving a highly responsive and powerful GPT-4 clone with improved natural language processing capabilities.

## ACHIEVEMENTS

- Achieved Specialist status on [Codeforces](#), attaining a high rating of 1537.
- Earned a 4-star standing on [Codechef](#), reaching an impressive rating of 1875.
- Distinguished as a Knight on [LeetCode](#), achieving a peak rating of 2056 and consistently ranking in the top 3% of LeetCode users.
- Clinched First Place in Symposia: Spektrum Coder, Flash Code, Codeathon, and Techkozura, dominating competitive programming contests and demonstrating exceptional leadership and problem-solving skills.

## SKILLS

- Strongest Area:** Algorithms, Data structures, SOLID Principles and Design Patterns
- Languages:** C++, C, Python and Java
- Front-end:** HTML, CSS, JavaScript and ReactJS
- Database:** MongoDB, ArangoDB and MySQL