LAGUDU SREE TEJA VARDHAN

Indian Institute of Technology Madras

EDUCATION

PROGRAM	INSTITUTION	%/CGPA	COMPLETION
B.Tech, Computer Science & Engg	Indian Institute of Technology Madras	7.04	2024
XII (CBSE)	MP&EV English medium school	90.2%	2020
X (CBSE)	MP&EV English medium school	84.6%	2018

SCHOLASTIC AND OTHER RELEVANT ACHIEVEMENTS

- Participated in various contests across coding Platforms like Codeforces,Codechef (Best performance: Rank **181**) and Codejam.
- Secured **All India Rank 691** in JEE ADVANCED 2020 (out of 1.5 Lakh students).
- Secured **All India Rank 574** in JEE MAINS 2020 (out of 11.74 Lakh students).
- Awarded the **KVPY** Scholarship in 2019.
- **Top 1%** (out of 50,000 students) in the NSEP 2019, NSEC 2019 and qualified for the Indian National Olympiads 2020.

RELEVANT COURSES AND SKILLS

- Paradigms of Programming**
- Introduction to Database Management Systems**
- Probability, Statistics and Stochastic Processes
- Design and Analysis of Algorithms
- Foundations of Computer Systems Design
- Data Structures and Algorithms
- Introduction to Game Development
- Operating Systems**
- Compiler Design**
- Languages, Machines and Computation
- Computer System Organisation and Architecture
- Discrete Mathematics
- Graph Theory

- **Programming Languages**: C, C++, Python, Java, Scheme, x86 assembly, HDL, SQL, Basic HTML.
- **Software Packages**: Nand2Tetris, AutoCAD, GitHub.
- **Frameworks & Libraries**: Numpy, Pandas, Linux pthread, RelaX.

MAJOR COURSE PROJECTS AND PROFESSIONAL EXPERIENCE

Compiler Design for MacroJava ** (Jul 2022-Present)

- Designing a 5 stage compiler for a MacroJava (a subset of Java).
- Wrote a MacroJava to MiniJava Translator using flex and bison.

DataBase Design ** (Jul 2022-Present)

- Designed a DataBase that consists COVID19 records and health status of a city
- Updated the ER Diagram, Relational schema diagram and populated with data (as of now).

Operating System Lab ** (Jul 2022-Present)

- Used Basic System calls in Linux and solved problems using shell script.
- Implemented a merge sort algorithm using threads and understood child processes, pipes, client-server communication.
- Implemented Multi Level Queue Scheduling Algorithm to find the process execution sequence.
- solved Dining Philosophers Problem and multiple producer-consumer problem using threads and semaphores.

Object-Oriented Algorithms Implementation Analysis **(Jan-May 2022)**

- Solved various problems using OOP concepts, data structures & algorithms in C++.
- Learned different techniques for effective problem solving such as DP, Greedy etc.

Computer Organisation and Architecture Lab **(Jan-May 2022)**

- Implemented a hybrid Row Buffer Management System to understand the internals of Row Buffer Management System.
- Reverse Engineered L1 Cache to identify Cache block size and associativity.
- Compared Cache effects of naive matrix multiplication and blocked matrix multiplication using perf.
- understood the working of system calls in a x86 architecture.

Course Project - Nand2Tetris **(Fall 2021)**

- Implemented basic Combinational Logic Circuits using nand2tetris for arithmetic operations.
- Further built 8-bit ALU using the above.

EXTRA CURRICULARS

- Highest rating of 1935 on Lichess rapid
- NSO Chess: Selected to be part of NSO Chess team at IITM
- Mentored numerous JEE Aspirants on Mentor Match App

(** - ongoing)