Gandholi Sarat

M. Tech in Computer Science (Ongoing)

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Summary

Enthusiastic Computer Science student currently pursuing a M.Tech in Computer Science. Exploring binary instrumentation tools (DynamoRIO, PIN). Passionate about problem-solving, team collaboration, and continuous learning.

Education

Sri Sathya Sai Institute of Higher Learning, Prashanthi Nilayam

2025 - Present

 $M.\,Tech\,\,in\,\,Computer\,\,Science\,\,(Ongoing)$

Prasanthi Nilayam, Andhra Pradesh

Sri Sathya Sai Institute of Higher Learning, Prashanthi Nilayam

2023 - 2025

M.Sc. in Mathematics (Specialization in Computer Science)— CGPA: 8.6 (Distinction)

Prasanthi Nilayam, Andhra Pradesh

Sri Sathya Sai Institute of Higher Learning, Brindavan Campus

2020 - 2023

B.Sc. (Hons.) in Mathematics — CGPA: 8.0 (Distinction)

Bengaluru, Karnataka

Project Experience

DynamoRIO Memtrace Optimization

Optimized memory tracing tool using DynamoRIO

Improved trace collection in memory-intensive environments by applying buffer adjustments, address offset usage, and compression techniques. Benchmarked using FileBench, LMbench, and STREAM.

GitHub Repository

Binary Instrumentation Exploration

Architecture Study of DynamoRIO and Intel PIN

Explored DynamoRIO's internal design and plugin system. Developed basic instrumentation tools and compared its features and usability with Intel PIN.

Unity Game Project - InnerGenius

Game Design using Unity and C#

Created a game prototype aimed at enhancing decision-making and emotional intelligence through interactive challenges.

← Play Link: InnerGenius

Core Skills

C/C++, Python, C#, Algorithm Design, Computer Architecture, Unity, DynamoRIO, Intel PIN, Linear Algebra, Statistics

Additional Skills

Real Analysis, Group Theory, Topology, Calculus

Languages

English (Fluent), Telugu (Native)

Soft Skills

Reading, Critical Thinking, Public Speaking, Rational Thinking, Emotional Intelligence