

Sree Naga Manikanta Katta

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EDUCATION

Indian Institute of Technology, Dharwad

Bachelor of Technology in Computer Science and Engineering

December 2021 – Present

CPI: 9.21/10

EXPERIENCE

Defence Research and Developmental Laboratory (DRDL) | 🔒

Project Intern

May 2024 – June 2024

DRDL, Kanchanbagh, Hyderabad

- Implemented a software simulation of a ring-token protocol, and optimised network communication to reduce latency and improve throughput.
- Developed a Python-based simulation utilizing TCP socket connections to manage new connections, assign unique identifiers, and establish ring connections, ensuring balanced communication through a round-robin approach using a token.

PROJECTS

IIT Dharwad Student Portal | Bootstrap, CSS, Javascript, Node.js, Express.js, MongoDB | 🔒 August 2024

- Created a student portal during the Devhack 5.0 contest at PARSEC 2024, featuring a 'Lost and Found' section for reporting lost and found items, a 'QuickLinks' section with essential college links, and an 'Events' section for listing upcoming activities.
- Included an admin role with capabilities to add and manage events and resource links, facilitating efficient updates and maintenance of the portal.
- Incorporated a 'Discussion Forum' for interactive communication between students, where they can post questions and receive answers from their peers.

Secure Chat and Video Streaming Application | Python, cv2, Crypto | 🔒

March 2024

- Built a secure chat and video streaming application using Python and command line interface, featuring real-time messaging with multiple clients.
- Employed RSA encryption to secure real-time messaging between clients, ensuring that all communications are protected and private.
- Provided on-demand video streaming from the server and ensured a seamless, user-friendly process for connecting and disconnecting clients.

IRCTC Database Management | PostgreSQL, Python | 🔒

October 2023

- Designed a PostgreSQL database system for IRCTC, creating the necessary tables and relationships based on an ER model to accurately represent the system's data structure.
- Created a user-friendly Python-based CLI for ticket reservations and cancellations, incorporating transactions to handle multiple users attempting to book simultaneously.

TECHNICAL SKILLS

Languages: Java, Python, C/C++, HTML, CSS, JavaScript, Bash

Frameworks/Libraries: Node.js, Express.js, Bootstrap

Cloud/Databases: MySQL, PostgreSQL, MongoDB

Developer Tools: Git and Github, VS Code, LaTeX

Core Technical Proficiencies: Data Structures and Algorithms, Operating Systems, Databases and Information Systems, Computer Networks, Computer Architecture, Software Development for Scientific Computing

ACHIEVEMENTS

- Achieved a Top 30 position** among 100+ participants in the 'ALGOSTRIKE' event at **PARSEC 3.0**, IIT Dharwad's annual tech fest.
- Secured a Top 5 Position** in the web development category during the 'DEVHACK 5.0' event held at **PARSEC 4.0**, the annual tech fest of IIT Dharwad.