Sai Rohith Tanuku

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Research Publications: Google Scholar ♂

EDUCATION

- **University of Pittsburgh** — Pittsburgh, PA, USA
  Master of Science in Information Science. GPA: 3.9/4.0 — *Apr. 2025*

- **Manipal Institute of Technology** — Manipal, India
  Bachelor of Technology in Computer and Communication Engineering — *May. 2023*

EXPERIENCE

- **University Of Pittsburgh** — Pittsburgh, PA
  Master Of Data Science (MDS) Course Facilitator
  - Coordinating the delivery of advanced Data Science coursework, optimizing online platform performance, managing version control for instructional materials, and troubleshooting technical issues to ensure seamless course operations.
  - Delivering targeted academic support by demystifying complex algorithms, statistical models, and machine learning techniques, while facilitating in-depth discussions and problem-solving sessions with students.
  - Executing the assessment of coding assignments and data analysis projects, applying rigorous evaluation criteria, and providing actionable feedback to enhance students' technical proficiency in Python, R, and data manipulation frameworks.

- **University Of Pittsburgh** — Pittsburgh, PA
  Computer Science Tutor
  - Mentoring students in foundational and advanced computer science topics, including data structures, algorithms, operating systems, and object-oriented programming, to enhance their problem-solving and coding skills.
  - Guiding students through complex coding assignments and projects, providing expertise in debugging, code optimization, and best practices in software development using languages such as Python, Java, and C++.
  - Facilitating student's understanding of theoretical concepts by demonstrating practical applications in areas like databases, computer networks, and discrete mathematics, ensuring a comprehensive grasp of both theory and practice.

- **EAIESB Software Solutions Private Limited** — Hyderabad, India
  Software Development Engineer Intern — *May. 2023*
  - Designed and implemented a robust Enterprise Error Handling Framework by integrating Salesforce, ActiveMQ JMS, and Dell Boomi, orchestrating seamless error-handling workflows and developing Apex classes to enhance overall system reliability.
  - Crafted a custom Dell Boomi connector with ActiveMQ JMS for seamless error data transfer, enhanced by Java and Postman expertise.

- **Bharat Sanchar Nigam Limited (BSNL)** — Hyderabad, India
  Application Developer Intern — *Aug. 2022*
  - Spearheaded the creation of an end-to-end E-commerce app using Android Studio and Java during a notable internship at BSNL.
  - Demonstrated expertise in full-stack development and collaborative deployment, showcasing proficiency in Android Studio, Java, and collaborative project execution.

- **L&T Technology Services** — Chennai, India
  Computer Vision & AI Intern — *Jul. 2022*
  - Integrated GIS data to optimize spatial analysis, providing valuable insights for geospatial applications and contributing to enhanced decision-making processes.
  - Applied state-of-the-art computer vision algorithms and deep learning techniques to enhance object detection accuracy and model performance.
  - Developed a specialized neural network architecture for efficient feature extraction in Computer Vision tasks, specifically tailored to handle geospatial data characteristics.
  - Acquired practical experience in training neural networks, specializing in advanced object detection models.

- **Bright Infotec** — Secundrabad, India
  Product Management Intern — *Fall 2020*
  - Contributed to product development at Bright Infotec, collaborating with cross-functional teams for requirement gathering, market research, and user feedback analysis. Assisted in managing and optimizing the product portfolio, creating roadmaps, defining features, and conducting competitive analysis.

RESEARCH PUBLICATIONS

- **Liver Disease Prediction Using Ensemble Technique**: **S. R. Tanuku**, A. A. Kumar, S. R. Somaraju, R. Dattuluri, M. V. K. Reddy and S. Jain, "Liver Disease Prediction Using Ensemble Technique," 2022 8th International Conference on Advanced Computing and Communication Systems (ICACCS), Coimbatore, India, 2022, pp. 1522-1525, DOI: 10.1109/ICACCS54159.2022.9784999.

- **An Indispensable Contemplation on Natural Language Processing Using Ensemble Techniques for Text Classification**: A. Chahar, N. Patil, D. Walunj, **S. R. T**, R. Shah and H. Saratkar, "An Indispensable Contemplation on Natural Language Processing Using Ensemble Techniques for Text Classification," 2022 8th International Conference on Advanced Computing and Communication Systems (ICACCS), Coimbatore, India, 2022, pp. 406-410,

  DOI: 10.1109/ICACCS54159.2022.9785015.

PROJECTS

- **Path Visualizer**: Implemented popular path-finding algorithms, showcasing self-learning ability and problem-solving skills using Pygame for visualizing and demonstrating path-finding algorithms, highlighting algorithmic proficiency.
- **WebSocket Tic-Tac-Toe**: Developed a multiplayer game application using JavaScript, Socket.IO, and Express. Players can start new games and share the generated game ID to invite others for multiplayer sessions, allowing for multiple consecutive games as long as both players are online.
- **Chat Application**: Developed a feature-rich chat application using the Comet Chat API, encompassing video and audio call functionalities, real-time messaging, and a user-friendly interface, delivering a seamless communication experience.
- **Freshery**: Developed a full-scale e-commerce platform, featuring user authentication, product catalog management, shopping cart functionality, secure payment processing, and order tracking, to deliver a seamless online shopping experience.
- **CloudBlock SecureChain**: I developed a decentralized blockchain system on the cloud. The project involved deploying smart contracts in Solidity on a local Ethereum blockchain to manage Merkle tree roots, enabling secure data storage and verification. I also created a query and verification system that detects unauthorized data modifications, ensuring data integrity with backend support from Cassandra.

SKILLS

- **Languages**: Python, Javascript, R, MATLAB, C, C++, SQL, Java, HTML, CSS, Bash

- **Technologies**: AWS, Git, GCP, MongoDB, MySQL

- **Machine Learning Libraries**: Pandas, NumPy, MatPlotLib, Seaborn, TensorFlow, Sci-Kit, Keras, Pytorch