# VENKATA NAGA SAI RAM NOMULA

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## EDUCATION

**Master of Science in Computer Science**, University of Houston, TX      May 2025
Relevant Coursework: Data Mining, Machine Learning, Visualization, Digital Image Processing, Cloud Computing.
**Bachelor of Technology in Computer Science Engineering**, SRM University, India      May 2023
Relevant Coursework: Operating Systems, Artificial Intelligence, Project Management, DBMS, Agile Development
Specialization: Software Engineering

## SKILLS & TOOLS

Python, C, C++, R, Java, JavaScript, HTML, CSS, SQL, React, NodeJS, Linux, Git, GitHub, AWS, REST, Postman, Jenkins, Swagger, Tableau, Figma.

## EXPERIENCE

**Research Assistant** at University of Houston, TX, USA.      Jun 2024 - Present

- Developing advanced security frameworks and models to enhance the cybersecurity of Advanced Traffic Management Systems, specifically targeting vulnerabilities to Intersection Signal Attacks, aiming to strategically reduce breach incidents by over 50% through robust system hardening and proactive threat mitigation.
- Conducting detailed security assessments and testing protocols that have identified and neutralized potential security threats, enhancing system safety and reliability by improving threat detection rates by 40%.
- Authored a detailed analysis of kernel-level vulnerabilities post-Microsoft Windows outage, proposing a robust security framework to enhance system resilience against critical threats and prevent future incidents.

**Software Developer Intern** at Airdonex Technologies Pvt Ltd, India.      Jan 2022 - Apr 2022

- Innovated user interface concepts, boosting user engagement by 30%, and led a cross-functional team of 10, streamlining project delivery and enhancing efficiency through agile practices and continuous integration.
- Enhanced user interfaces through rigorous testing, significantly improving functionality and user response.

**Creative Design Lead** at Surge: Crypto & Invest, India.      Nov 2021 - Apr 2022

- Directed development and launching of a mobile application for automated Bitcoin investment, securing a 25% market share post-launch. Advanced business development, generating a 10% increase in investment capital.
- Managed project alignment with business goals, ensuring timely delivery and superior product quality.

## PROJECTS

**AskLlama,** fine-tuned Llama 2 model using PEFT and QLoRA, achieving 5% improvement in BLEU score and reducing memory footprint by 20% across multiple applications, including question-answering.

**Ranola NFT Marketplace,** developed a ReactJS-based frontend for an NFT marketplace, providing a platform for creators to showcase and trade digital assets, with responsive and accessible design elements optimized for performance on Netlify.

## PUBLICATIONS

**DiaDisc: A Machine Learning Approach for Classification and Prediction of Diabetes Mellitus** *[IEEE]*
Published in 2023 International Conference on Data Science, Agents & Artificial Intelligence *(ICDSAAI)*

## LEADERSHIP

- Joint Vice President, NWC Association: Led sixty members from diverse disciplines to organize technical events.
- Secretary & Organizer, Team SRM Hackathon: Managed forty members to host international technical events.