Manish Rangan

Frisco, Texas | (901)-326-2275 | manishrangan1259@gmail.com | US Citizen | Github | LinkedIn

Profile

Innovative Computer Engineering student at Georgia Tech with a strong background in software and hardware development. Experienced leader and entrepreneur, co-founding multiple startups and managing diverse teams to deliver impactful, sustainable solutions. Passionate about leveraging technology and data to drive innovation.

Education

Georgia Institute of Technology | Atlanta, GA *Expected Graduation*, May 2026
Bachelor of Science in Computer Engineering, GPA 3.93

Skills

Programming: Python, Java, JavaScript, TypeScript, C, C++	**Hardware:** FPGA, Raspberry Pi, Arduino, Embedded Systems
Management: Risk Identification, Cross-Team Collaboration	**Software Tools**: Linux, Git, React, NodeJS, Excel, AWS
Relevant Coursework: Data Structures & Algorithms, Object Oriented Programming, Programming HW/SW Systems	

Experience

Merlin Solar Technologies - *Data Analytics & Electrical Engineering Intern* *June 2024 – August 2024*

- Enhanced safety for Amazon delivery drivers by optimizing AC-implemented solar panel performance on the Rivian EDV and Ford CDV. Reduced heat stroke risks through data-driven analysis, lowering mean cargo and cabin temperatures by 15°F.
- Developed testing protocols and specifications for a prototype 1.5kWh Enphase Energy battery. Leveraged Python and Excel to analyze performance metrics and charging profiles, identifying optimal operating parameters.
- Engineered a Python tool to evaluate solar panel performance, achieving 150% higher power output than competitors.

Clink Inc - *CEO & Co-Founder* *February 2024 – Present*

- Developed a cross-platform, AI-driven marketplace using React, React Native, NodeJS, and AWS, connecting homeowners and DIYers with construction materials at 40% below traditional retail costs. Integrated a chatbot to create DIY project recipes based on user input, popular project ideas, and available inventory.
- Led project execution, investor relations, and outreach to buyers and partners. Secured a strategic partnership with Lifecycle Building, rehoming 45+ orders and diverting over 10,000 pounds of waste from landfills, validating market potential..
- Placed Top 5 in the ATEA PitchFest 2024 at the Catealyze National Conference, selected from 25+ startups to present live to CEOs, investors, and industry leaders.

UVSET Inc - *CEO & Co-Founder* *August 2020 – May 2023*

- Invented a **patent-pending** UV-C-based automated door handle sanitizer, leading product design, engineering, and marketing teams from concept through to prototyping.
- Secured $40,000 in seed funding with a $750,000 LOI for prototype development and presented research at the Advancing Healthcare Innovation Summit 2022, with findings published in the Digital Health Journal.

Projects

Memory Peripheral | Digital Design *October 2024 – November 2024*

- Designed and implemented a memory peripheral using Quartus, FPGA, VHDL, and Assembly, increasing the computer's standard memory from 2,048 bits to over 65,000 bits—achieving a 3200% memory expansion.

Premier League AI/ML Prediction Tool *August 2024 – September 2024*

- Developed a AI/ML Prediction Python-based model to forecast Premier League match outcomes, achieving a 78% success rate.
- Leveraged RandomForestClassifier model and historical data from 1993-2023 and factors like home advantage, team performance, and betting odds to achieve simulated profits of $31,993 in the 2023-2024 season.

WasteMAP | Georgia Tech Create-X, Innovation to Prototype *September 2023 – December 2023*

- Designed and implemented an AI-integrated sensor with an AutoCAD-generated casing for industrial dumpsters to optimize waste collection routes. Estimated through a Python simulation to be 20% faster than traditional Waste Management Routing.
- Assessed fill levels with an accuracy of 95% using camera-based image-detection technology and a Raspberry Pi system.

Grocery Store Sanitization Apparatus | DIscoverSTEM Innovation *December 2019 – June 2020*

- Invented and **patented (US 11857687B2)** UV-C sanitizing and price-scanning device for grocery store conveyor belts, addressing critical hygiene concerns during the checkout process.