

# Satvik Malneedi

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## Objective

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Seeking a challenging internship in software/computer engineering with a focus on chip design or full-stack development in May 2025. Strong foundation in programming and electronics, and eager to contribute to innovative projects at the intersection of hardware and software.

## Education

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**Georgia Institute of Technology | Atlanta, GA**

Bachelor of Science in Computer Engineering | GPA: 4.0 | Junior Standing

*August 2024 – Present*

Expected Graduation, May 2027

## Skills

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**Programming Languages:** Java, Python, C#, JavaScript, React.js, Tailwind CSS, Node.js, tcl/tk, Makefile, Verilog/HDL

**Platforms, Hardware, and Software:** Linux (Ubuntu), Figma, Git/GitHub, Raspberry PI

**Professional Organizations:** IEEE (Institute of Electrical and Electronics Engineers)

**Languages:** English (native), Telugu (native), Hindi (moderate), Spanish (conversational)

## Experience

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**DeAP Learning Labs | Remote**

*May – August 2023*

**Intern**

Implemented AI models as a part of a student-led company focused on AI-powered tutoring for AP classwork, training the models on data from leading educators to provide personalized learning experiences.

- Researched and implemented efficient AI model training strategies, including data augmentation and hyperparameter tuning, using PyTorch (Albumentations) and scikit-learn (GridSearchCV), achieving a 10-15% reduction in training time and improved model performance
- Contributed to the design and development of the front-end for the DeAP website using React and Tailwind CSS, while integrating Firebase for user data sync

**SUNY Albany | Albany, NY**

*June 2021 – September 2022*

**Paid Intern**

- Conducted cybersecurity research focused on analyzing real-world data from the VERIS dataset utilizing Python (Matplotlib, Pandas) to clean, analyze, and visualize data, and Jupyter Notebook to document the analysis and produce reproducible workflows)
- Assigned to investigate patterns in the dataset related to incident types and their impact, such as creating threat landscapes for various institutions (banks, retail, insurance)

## Projects

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**EcoRoute | Georgia Tech Hackathon**

*September 2023 – June 2024*

**Developer**

*Created a website that would allow users to view their routes while also viewing the carbon emissions of their routes corresponding to their vehicle.*

- Integrated the Google Maps Embed API and Carbon Interface API to gather real-time emissions data from car models, enabling accurate carbon footprint calculations through JavaScript
- Developed a responsive and user-friendly frontend using React.js and Tailwind CSS, using JSX for dynamic rendering, while implementing a Node.js backend server to ensure smooth data processing and API integration
- Platform contributed to promoting sustainable transportation choices by delivering personalized emissions reports

## Leadership and Activities

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**Silicon Jackets | Physical Design Team**

*September 2024 – Present*

*Team that architect's computer chips from design to tape out, optimized for various tasks (e.g. Computer Vision)*

- Verified RTL designs using Verilog, ensuring functional correctness and compliance with architectural specifications
- Utilized Cadence tools like Genus for synthesis and Innovus for layout to meet performance, area, and power targets
- Automated design flow tasks with TCL scripting, streamlining processes and ensuring proper timing and power optimization