

# Santhosh Nalla

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## EDUCATION

### GEORGIA INSTITUTE OF TECHNOLOGY

Atlanta, GA

B.S. Computer Engineering

Expected May 2027

Cumulative GPA: 3.92/4.0

Relevant Coursework: Design and Analysis of Algorithms, Objects and Design, OOP, DSA,

Concentration: Distributed System & Software Design and Systems & Architecture

## WORK EXPERIENCE

### Subsystem Design and Integration Engineer | Georgia Tech EcoCAR EV

August 2025 – Present

- Collaborated with members of the SDI sub-team to design and model a custom false floor in **Siemens NX**, creating a lightweight, integrated platform for critical components while meeting strict packaging constraints
- Validated the structural integrity of the false floor design by conducting **Finite Element Analysis** with **Altair Inspire**, presenting simulation results to the team to ensure compliance with EcoCAR competition safety standards
- Led the fabrication of the false floor component, translating **Siemens NX CAD** models into a physical product through hands-on work with various **tools** and **machines** in the university's Student Competition Center

### Web Development Intern | STEMPOWERed

August 2023 – May 2024

- Collaborated in a team of 20+ to redesign the website's frontend with **Agile sprint planning**, which improved performance metrics by 20 points and reduced page load time by 15%.
- Developed and deployed 5 new **UI components** with **JavaScript** and **CSS**, enhancing **user experience** and **engagement**, ensuring compatibility across desktop, tablet, and mobile devices
- Actively held **Agile sprints**, **code reviews**, and collaborative **GitHub workflows**, contributing to a 95% on-time feature delivery rate.
- Documented technical processes and contributed to cross-team knowledge sharing.

### Math Instructor | Mathnasium

August 2023 – May 2024

- Delivered individualized instruction to 100+ students from kindergarten through calculus, tailoring lessons to diverse learning styles.
- Improved long-term student performance by an average of 15% and achieved a 90% student retention rate.
- Strengthened communication and collaboration while explaining 50+ distinct math concepts in accessible ways

## PROJECTS

### CareerConnect

- Co-developed a full-stack web application connecting students with recruiters, specifically engineering the matching logic that pairs applicants to jobs based on their skill sets.
- Designed and managed the database schema, ensuring that user profiles and job listings were organized efficiently for fast retrieval and a smooth user experience.

### GTFoodTrucks

- Collaborated with a team to build an Android app that tracks campus food trucks, integrating the Google Maps API so users can easily find real-time locations and menus.
- Worked in an Agile environment to manage version control and sprint goals, ensuring our team consistently delivered working features that helped the community find food faster.

### Chip Floorplanning Algorithm Visualizer

- Developed a visual solver for VLSI chip design using Simulated Annealing and B\*-Tree algorithms, creating a tool that makes complex optimization logic easier to analyze and debug.
- Implemented dynamic rendering to track the algorithm's progress in real-time, allowing users to visually verify how the code minimizes chip area and wire length.

## ADDITIONAL

**Skills:** Agile methodologies, SolidWorks, Python, Java, C++, React, Node.js, HTML/CSS, Django, Github, CAD, Visual Studio Code, SQL, Machine Learning, Siemens NX, Altair Inspire, FEA, Mechanical Fabrications

**Certifications:** Certified SOLIDWORKS Associate (**CSWA**), Microsoft Office Specialist: **Excel**, Word, Powerpoint, IT Specialist - Java, IT Specialist - Python, IT Specialist - Software Development, edX Intro to Computing with Python