# Gunta Siva Tanuj

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## EDUCATION

#### Indian Institute of Technology, Delhi (IITD)

Delhi

B. Tech. in Electrical Engineering; GPA: 9.66/10.00

Jul 2019 - Jun 2023

**Department Rank (IITD):** Ranked  $2^{nd}$  in Electrical Engineering department at the time of graduation

## AWARDS & ACHIEVEMENTS

IIT Delhi Merit List: Awarded 4 times for ranking among top 7% stude	nts in college (2023)
Summer Undergraduate Research Award: Conferred by Industrial Re	&D Unit for excellent research. (2021)
JEE Advanced: Secured an All India Rank 468 (GE) among 2.5 lakh elig	ible candidates (2019)
JEE Mains: Secured a percentile score of 99.95 among 12 lakh eligible car	ndidates (2019)

### EXPERIENCE

Enphase Energy Bangalore

 $Systems\ Software\ Engineer$ 

Jul 2023 - Present

- Designed and implemented PID controller for Enphase IQ Gateway to optimize energy usage based on solar power
- Tested and validated PID control algorithm for system steady state stability and accurate command execution
- Automated microgrid failure root cause analysis with Python, reducing troubleshooting time for CS teams
- Defined grid compliance requirements for multiple countries in Europe and Asia to ensure regulatory adherence

### Tara Capital Partners India Pvt Ltd

Delhi

Quantitative Researcher Intern

Jan 2023 - Jun 2023

- Developed margin calculation system for F&O and Currency Derivatives trading using live SPAN data from NSE
- Created Greeks and VIX calculators for understanding implied market volatility using real-time exchange data
- Built a ML based classifier to predict strategy profit/loss performance beforehand using order book and VIX data

Texas Instruments Remote

Electronic Design Automation Intern

May 2022 - Jul 2022

- Delivered Electro Migration reliability check module in Perl, 1500x faster than required, improving efficiency
- Implemented IC layout segmentation with DFS realizing the layout as a forest at each layer, achieving 100% QOR

### SKILLS

Languages: C/C++, Python, Java, Perl, MATLAB

**Technologies:** Git, Docker, Incorta, pandas

#### Projects

## AI tries Trading | GitHub

 $Mar\ 2025-Apr\ 2025$ 

- Developed an AI-driven trading strategy using LLMs and AI-based decision-making models for stock trading
- Refined AI-generated code through manual corrections and prompts, improving the functionality of the system
- Implemented trading simulations and back-testing using historical data to evaluate the performance of strategies

#### Self-interference Canceler for AUTORADAR

Aug 2022 - Nov 2022

- Designed a phase shifter integrated into an FIR filter to model interference from car bumpers for radar systems.
- Tested various phase-shifting topologies, including high-pass, low-pass, all-pass, pi, and tee to optimize the design.

#### Efficient Computation of EMG Data Using Matrix Multiplying ADC

May 2021 - Jul 2021

- Designed a classifier to predict hand gestures using EMG data for hand amputees, achieving 78% accuracy
- Trained an LDA classifier with features on raw EMG data, and incorporated feature extraction into an ADC
- Generated SOTA plots of accuracy versus quantization bits, revealing unusual results in feature interaction

## Marvel Character Analysis and Dynamic Memory Allocation

Dec 2020

- Constructed a storyline graph with 327 Marvel characters as nodes and 9891 character connections as edges
- Used DFS to partition story lines to find average connections per character and character ranks efficiently

#### Marks Portal for Student and Teacher Accounts

Aug 2021

- Designed a server to manage student and teacher login credentials, ensuring secure access and information retrieval
- Developed client interfaces for teachers and students to view or edit student marks stored in a database

## Relevant Coursework

Data Structures and Algorithms, Probability and Stochastic Processes, Computer communication, VLSI Design, Analog Design, Machine Learning, Prompt Engineering, Design principles

### Hobbies

Table Tennis, Yoga, Mythology, Movies