Snehadeep Gayen | CS21B078
B. Tech Computer Science and Engineering
Indian Institute of Technology, Madras

EDUCATION

Course	CGPA/%	Institution	Year
B. Tech CSE	**9.90**	Indian Institute of Technology, Madras	2021-Present
HSC 12th	98.17	Pace Junior Science College Andheri, Mumbai	2019-21
ICSE 10th	98.8	Lilavatibai Podar High School, Mumbai	2019

PROJECTS

WiFi Tomography*   📅 May'23 - Present
Project Under Prof. Ayon Chakraborty   *Python*

- Working on computational optimisation of Tomographic Imaging (using WiFi) for outdoor and indoor drone application

Reading Project and Presentation
CS6122 Course Project - Prof. B. V. R. Rao 📅

- Presented a paper on *"A Survey of Deep Learning Techniques for Autonomous Driving"* by *S. Sallab et al.* and discussed the various deep learning techniques used in autonomous driving

CC - CENDY algorithm   *C++*
Project under Prof. M. Narayanan

- Studied a research paper on Closeness Centrality and APL in Dynamic Graphs (descr. below) and implemented its algorithm in C++
- C. -C. Yen, M. -Y. Yeh and M. -S. Chen, "An Efficient Approach to Updating Closeness Centrality and Average Path Length in Dynamic Networks" 2013 IEEE 13th Intl. Conf. on Data Mining

SOFTWARE SKILLS

- **Languages**: C++, C, HDL (Verilog), Python, Java, HTML, x86, RISC and 8085 ASM, CSS, R

- **Tools**: TI CCS, Git, LaTeX, AutoCAD, GDB

- **Libraries**: TI RTOS, NumPy, PyLops, Matplotlib

EXTRACURRICULAR ACTIVITIES

- **Sports:** Taekwondo Red Dan II Belt, Awarded Best Athlete U14 at School, NSO Athlete at IITM

- Mentored freshmen, personally and academically, under **Saathi, IIT Madras**

- Avid book reader and Tabla player

SCHOLASTIC ACHIEVEMENTS

- Secured **AIR 5** in JEE Mains out of 1 million students
- Secured **AIR 161** in JEE Advanced
- Secured **AIR 10** in Indian Statistical Institute Exam
- Secured **AIR 21** in INChO and attended IChO Camp
- Awarded KVPY Fellowship (2021) with **AIR 338**
- Won 1st place in Mimamsa '22 at IISER Pune
  4th place in Chemenigma '22 at IISC Bangalore & Silver Medal in Homi Bhabha Science Competition (conducted in Maharashtra)

EXPERIENCE

- **Member, Team Avishkar Hyperloop 6.0** | **CFI IITM**
  - Participated in the prestigious **European Hyperloop Week** representing IITM & India
  - Part of the design and implementation team of the Main Control Unit and Nagivation Unit of our Pod
  - Used RTOS and comm. protocols like MQTT, CAN, etc to collect and store data from over 20 sensors at **low latency**, **handling faults** appropriately.
- **Tutor & Contributor** | **NPTEL**   *March '23 - Present*
  - Created **YouTube tutorials** under NPTEL for previous year GATE CS questions especially for the less privelleged applicants

CODING ACHIEVEMENTS

- **Codeforces** - Max Rating 1678 Expert
- **ICPC**: Mathura Prelims AIR 151
- AIR 3 in Shaastra CP Potpourri (Mixed-bag coding contest) *[Shaastra is Asia's largest student-run Techfest]*
- Google Farewell Round Global Rank 373
- Codeforces Round 881 Global Rank 231
- CodeChef Starters 96 (Div. 3) Global Rank 9
- 1st place in Inter-School Java Competition in Mumbai

RELEVANT COURSES

- Basic Electrical Engg
- Comp. Systems Design
- Prog. and **Data Structures**
- Computer Organisation and Architecture
- Design & Analysis of **Algo**
- Theory of Computation
- Probabilistic, Smoothed Analysis of Algorithms
- Object Oriented Prog.
- Discrete Maths
- Basic **Graph Theory**
- **Probability, Statistics** & Stochastic Processes
- Series and Matrices
- Multivariable Calculus
- Ordinary Differential Eqns
- Principles of **Economics**
- Intro to **Game Theory**
- Compiler Design *
- Operating System *

* Ongoing