Gaurab Das

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Gaurab is an engineering student at MIT. He was born in Houston, TX and his current hometown is in Chicago. Proficient in C/C++, Matlab, Python and experienced in data analysis, software development, and PCB design.

Education

Massachusetts Institute of Technology – Boston, MA   **Expected May 2025**
Electrical Engineering and Computer Science (6-2)   **GPA –** 5.0/5.0
Courses: Data Structures and Algorithms, Circuit Analysis, Signal Processing, Control Theory, Machine Learning, Probability and Statistics, Computer Architecture, Pokerbots, Linear Algebra, etc.

Experience

Engineering Intern, NASA JPL   **June 2023 - August 2023**
- Developed advanced radar waveforms to mitigate interference effects for efficient lunar communications.
- Built Radar simulation tools in Python, and implemented Synthetic Widebands on SDRadars in C++

Data Analyst Intern, Recidiviz   **January 2023**
- Used MySQL and Pandas to estimate impact potential available for parole officers in Idaho and partner states.

Undergraduate Researcher - Robust Robotics Group, MIT CSAIL   **September 2022 – Present**
- Engaged in uncertainty estimation of information in far-field images with implications in autonomous mobility.
- Presented work comparing different uncertainty models for networks predicting image depth at MIT CSAIL.

Engineering Operations Intern - Uhnder, Inc.   **May 2022 – August 2022**
- Uhnder is a company revolutionizing automotive mobility with the world's first digital imaging radar-on-chip.
- Developed data analysis tools for RF and OQC radar testing measurements using **Pandas, Numpy**, etc.
- Engaged in optimizing chip Flash write time via external SPI interface, built GUIs for testing scripts (**React**).

Undergraduate Researcher- Applications of ML in cellular base stations   **January 2022 – May 2022**
- Developed novel machine learning solutions to predict network coverage of base stations under Dr. Aggarwal.
- Engaged in implementing Generational Adversarial Networks (**Pytorch**) to improve performance of models.

Software Development Intern – Thaddeus Resource Center January 2022 – May 2022
- Thaddeus is a non-profit organization that empowers girls and women by providing clothing, food, etc.
- Used Python skills to develop Thaddeus' newest ventures in software and data science.

Activities and Leadership

InstaPresent - Automatic PowerPoint Creator   **https://devpost.com/software/instapresent**
- **Ranked 3rd globally** in CalHacks, the world's largest intercollegiate hackathon, hosted by UC Berkeley.
- Uses machine learning (Tensorflow) and Google Text-to-Speech API to generate presentations based on voice.

Learning Assistant, C and Assembly (6.1900) and Circuit Theory (6.2000)   **September 2022 – Present**
- Selected as teaching staff to help students in labs and exercises related to C and RISC-V Assembly (Fall 2022).
- Help design labs for circuit theory class and interact with students to strengthen conceptual understanding.

Treasurer and Web Dev, MIT Pokerbots   **https://pokerbots.org**
- MIT Pokerbots is a computerized Poker tournament with 250+ MIT students competing for $40,000 in prizes.
- Responsible for managing a budget of $95,000+. Invited to Citadel Discovery for work in organizing Pokerbots

Achievements

- **Ranked 1st out of 1.048 million students** in JEE-Mains 2021, India's largest engineering exam.
  Featured in national newspapers, including the **cover page of ToI**, India's most widely read newspaper.
- Overall winners at CalHacks 2021, **largest inter-collegiate hackathon in the world**; Big Data Hack,
  Best Human-Computer Interactions at Kent Hack Enough 2021; ASA Datafest 2022 Winners
- Ranked 16th nationally in Indian National Physics Olympiad (USAPhO Gold Medal equivalent). Invited to
  the Academic team of Asian Physics Olympiad 2022, an international event **hosting 20+ countries**.
- Ranked 5th out of 93365 students in WBJEE 2021. **Received Honorary letter from Chief Minister.**