

# Nabeel Hossain

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## Education

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**Georgia Institute of Technology** Expected May 2025  
Master of Science in Computer Science, Machine Learning

**Georgia Institute of Technology** Expected May 2024  
Bachelor of Science in Computer Science, Intelligence and System Architecture GPA: 4.0

## Experience

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**Teaching Assistant**, Georgia Tech College of Computing – Atlanta, GA May 2023 – Aug 2023

- Debugged and graded assignments in C using GDB. Provided comprehensive feedback to significantly enhance students' understanding of systems level programming and problem solving strategy.
- Facilitated lab sessions to review and answer questions on fundamental course topics using slides, example problems, and hands on demonstrations to over 40 students weekly.
- Provided exceptional support and guidance to students in-person, virtually, and via discussion forums, promptly addressing their questions and concerns to create a highly conducive learning environment.
- Improved efficiency in debugging, testing, and grading by a factor of 5 using python and Linux shell tools.

**Bits of Good**, Georgia Tech College of Computing – Atlanta, GA Sept 2022 – Present

- Developed, performed code reviews, and organized technical leadership for nonprofit development
- Collaborated within a 9-member agile team structure, working closely with an Engineering Manager, a Product Manager, and a team of 4 developers to deliver high-quality projects
- Directed project development by creating sprint tickets, prioritizing tasks and ensuring timely progress
- Demonstrated strong technical expertise by reviewing pull requests, providing constructive feedback to fellow developers, and resolving merge conflicts promptly and effectively

## Projects

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**Customer Churn Prediction** May 2023 – July 2023

- Predictive model for judging attrition rates for credit card customers given various features
- Collaborated with and coordinated tasks on 5-person team; utilized popular python data science and visualization libraries, such as NumPy, Pandas, PyPlot, and SKLearn
- Conducted thorough data exploration, feature selection, and class balancing on dataset of 10,000 customers
- Achieved 0.96 weighted f-1, 0.90 minority class recall after rigorous, documented model tuning and selection.

**Earthcraft** Sept 2022 – Apr 2023

- Developed a NextJS 12 application backed by MongoDB and Azure Blob Storage, efficiently organizing a digital library of over 1,000 sustainable building standards to be taggable, searchable
- Implemented a comprehensive solution for creating, searching, organizing, editing, and sharing standards, enabling clients to organize their information 3 times faster than before
- Designed the innovative Report Builder Feature, allowing engineers to seamlessly generate project reports by combining multiple standards, images, and user notes. Accelerated productivity with one-link PDF sharing.
- Utilized SWR for responsive UI updates and Server-Side Rendering for optimized loading speed.

**CleanUpCrew** Apr 2020 – June 2020

- Developed a dynamic decentralized crowdfunding platform using NextJS, MongoDB, and Google Maps API.
- Used aggregated geospatial data to design and implement a unique algorithm that can identify posts with the greatest potential community impact to prioritize to viewers
- Crafted a sleek and responsive user interface, ensuring seamless user experience across various devices.
- Coordinated frontend and backend tasks within a lean team of four, successfully delivering the project within an impressive 36-hour timeframe.

## Skills

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**Languages:** Python, Java, JavaScript, TypeScript, C, C++, HTML/CSS

**Frameworks:** ReactJS, Node.js, Express.js, Next.js, Flask, SCSS, jQuery, Mongoose.js

**Technologies:** SQL, MongoDB, L<sup>A</sup>T<sub>E</sub>X, NumPy, Matplotlib, Pandas, Git, Linux and Windows CLI

**Coursework:** Data Structures and Algorithms, Design and Analysis of Algorithms, Systems and Networks, Operating System Design, Machine Learning, Processor Design, Advanced Computer Organization