

# PRANAY GUPTA

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## EDUCATION

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### University of Michigan

Ann Arbor

Bachelor of Science in Engineering – Computer Science  
Bachelor of Business Administration  
GPA: 3.68 / 4.00

May 2025

## SKILLS

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**Languages** C++, Matlab, JavaScript, Typescript, HTML, Java, Python  
**Tools** Git, Excel, R Studio, Basic Understanding of Operating Systems

## PROJECTS

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### University of Michigan

Ann Arbor

#### *Stock Market Simulator - C++*

January 2023

- Created a stock market matching algorithm using Priority Queues.
- Implemented a streaming algorithm to track the most optimal trades.
- Developed an efficient method of maintaining a running median of trades for every timestamp.
- Implemented member functions for Binary, Sorted, and Pairing Priority Queues.

#### *Ship Routing Algorithm - C++*

February 2023

- Designed and implemented a ship routing algorithm that finds the shortest path between two points on a map, accounting for different levels and obstacles.
- Used command-line arguments and file I/O to parse user input and read in map data.
- Developed algorithm using C++ and STL library, including vector and deque data structures.
- Implemented Breadth-First Search (BFS) and Depth-First Search (DFS) for searching algorithm

## EXPERIENCE

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### TROY SCHOOL DISTRICT BOARD OF EDUCATION

Troy, MI

*School Representative of International Academy East*

May 2019 - May 2021

- Presented issues from high school to the Troy Board of Education in order to receive help and feedback.
- Analyzed business decisions made by the board and met with the principal to discuss their implications.
- Recommended by teachers and staff to be the sole representative for IAE during board meetings

### FIRST ROBOTICS TEAM 4384 BENZENE BOTS

Auburn Hills, MI

*Business Leader of Team 4384*

August 2017 - May 2021

- Drafted business plans and presentations for sponsors and raised over \$5,000 in donations.
- Worked with the high school principal to host events and recruit over 90 team members over 3 years.
- Created and taught interactive lessons for other team members on how to code, utilize machinery, and safety practices
- Developed and led a virtual STEM camp for over 30 middle school students.

## EXTRA-CURRICULAR ACTIVITIES

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- **V1 - Startup Club**, Cohort and Leadership Team Member January 2023 - Present
- **Michigan FinTech**, Algo - Trading Team Developer October 2022 - Present