

VIHAAN SHAH

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EDUCATION

Northwestern University, Evanston, IL

June 2026

Bachelor of Science, intended Major in Computer Science: Minor in Entrepreneurship: CGPA 3.74/4.0 | Major GPA 3.94/4.0

Relevant Coursework: Data Structures & Algorithms, Scalable Software Architecture, Introduction to Artificial Intelligence, Computer Networking, Computer Systems, Linear Algebra, Design Thinking & Communication, Multivariable Calculus

Awards: Dean's List Award (Honors Certificate for outstanding academic achievement – 2 quarters)

Aditya Birla World Academy, Mumbai, India

August 2022

Awards: A* in Math, Physics, Chemistry, English | ACT: 36/36 | Distinction in Communication Skills from Trinity College London

RELEVANT EXPERIENCE

Software Engineering Intern

June 2023 – August 2023

Accenture

Mumbai, India

- Employed on a project consulting for Hindustan Unilever to increase their productivity and boost profitability.
- Leveraged Generative AI to design an AI buddy chatbot that would provide operators with essential information about machinery, access past data, perform calculations and analysis on it, and make recommendations to prevent potential issues.

Robotics and Automation Intern

July 2021 – August 2021

Precision Automation and Robotics India Ltd.

Pune, India

- Explored robotics and automation technologies to manufacture automated solutions for numerous industries.
- Gained an insight into their business model, engaged with their R&D facility, developed skills in machine design using CAD and assisted with assembling and testing robotic arms on the shop floor.

Research Assistant

April 2021 – June 2021

Indian Institute of Technology (IIT Bombay)

Mumbai, India

- Researched sustainable and economically viable methods of converting waste to energy at IIT Bombay.
- Formulated a waste to energy conversion method that could use campus waste to produce energy to power the entire campus.
- Estimated cost of the proposed technology would be recovered through savings within the first two years itself.

INDIVIDUAL PROJECTS

Sports Analysis Software

April 2023 – May 2023

- Designed a software to perform statistical algorithmic calculations to determine the outcome of an encounter between any two teams for any given sport. The user interacts with the software via voice and results are based on an aggregation of past data.
- Enhanced knowledge about AI, using the OpenAI API, NLP, building models on top of LLMs, and designing statistical frameworks

Navigating Open Street Maps

January 2023 – February 2023

- Software to load Open Street Maps as graphs and utilize Dijkstra's algorithm to find the shortest route between any two locations.
- Developed skills in parsing maps, working with graphs, finding single source shortest path and large-scale programming in C/C++.

LEADERSHIP & ADDITIONAL ACTIVITIES

Electronics Team Lead

January 2023 – Present

American Society of Mechanical Engineers

Evanston, Illinois

- Awarded runner's up among the Big Ten schools at the ASME EFX Innovative Additive Manufacturing 3D Challenge.
- Leveraged Solidworks CAD, Arduino, and Prusa MK3S+ and Ender 3 V2 printers to build a hovercraft, remotely controlled by a joystick, capable of navigating a maze and delivering a payload.
- Planned and implemented wiring schematics, orchestrated hovercraft's programming and established remote connection between the hovercraft and joystick, streamlined strategizing and technical discussions

Head of Programming - FIRST Robotics Competition

July 2020 – April 2021

Aditya Birla World Academy

Mumbai, India

- Designed a robot to collect and shoot balls at a desired target, requiring capabilities in tele-operated and autonomous navigation
- Spearheaded the programming division and was responsible for the robot's coding and electronics and strategizing discussions.
- Awarded runner's up in Qualcomm Innovation Challenge for designing an app enhancing senior's healthcare and community.
- Organized workshops for young students and underprivileged children to encourage them to pursue STEM by stimulating their interest in robotics and guiding them to establish a team to participate in the FIRST Tech Challenge.

Committee Head

April 2023 – Present

EPIC – Northwestern University

Evanston, Illinois

- Lead a week-long trip to San Francisco for 15 students to explore the city and network with tech professionals in Silicon Valley.

SKILLS & INTERESTS

Computer Languages: Proficient in Python, C, C++, C#, Java, Assembly, SQL, MATLAB, HTML, CSS, JavaScript, Racket, Arduino

Technical Skills: Software Engineering, AWS, Robotics, Web Development, Angular, Full-stack, MS Office, Azure, OpenAI

Memberships: IEEE, Develop + Innovate for Social Change, Responsible AI Student Organization, Pre-Professional Tech Fraternity