

Faraz Chowdhury

farazchow@gmail.com | (862) 201-8424 | www.linkedin.com/in/farazchow | <https://github.com/farazchow>

Education

Massachusetts Institute of Technology, Cambridge, MA

Dec 2025

- Bachelor of Computer Science & Electrical Engineering
- Relevant Coursework: Computational Structures, Design and Analysis of Algorithms, Linear Algebra, Computer Systems Engineering, Software Construction, Modeling with Machine Learning, Computer Vision
- Member of MIT's Poker Club, Men's Volleyball Club, and Game Development Club

Work Experience

Software Engineer

Sept 2023 – Dec 2023

Tesla, Palo Alto, CA

- Utilized Python and Javascript mapping libraries and Matplotlib to visualize geographical JSON data for Tesla routes, allowing for alternate methods of comparing routes.
- Developed and evaluated machine learning models using Numpy, Pytorch, and other python libraries to analyze the complexity, feasibility, and efficiency of multiple possible routes.
- Integrated models with the Tesla backend for decision making in vehicles, ensuring that Tesla Autopilot and Navigation choose the safest route faster and more often.

Full Stack Developer

May 2023 - Sept 2023

Catalan.ai, Cambridge, MA

- In collaboration with a UI/UX expert, designed and programmed a sign-in flow that authenticates the app with Shopify, authorizing analysis of sales data and dynamic pricing of a client's Shopify Story.
- Integrated the Catalan.ai web app with a modern CRM and collected customer statistics, enabling better optimization of customer's user experience and meeting client needs.
- Built multipurpose .NET C# backend endpoints with a PostgreSQL database that communicated with frontend React code, providing the website and machine learning models with necessary client sales data.

Full Stack Developer

May 2022 - Sept 2022

New Vassar Development Team, Cambridge, MA

- Built a general REST API connecting to a MongoDB database, allowing staff to track incoming packages, loaned resources, and other tenant activity.
- Utilized the Bootstrap and React front-end framework to create interactive UI for customers and hosted the website on AWS, making operations and maintenance more efficient for customer service staff.
- Developed a TypeScript tool that enabled efficient mass import and export of data from MongoDB databases and Excel Spreadsheets, enabling future data analytics.

Research Experience

Unreal Engine Developer and Student Researcher

Sept 2021 - Dec 2022

MIT Immersion Lab, Cambridge, MA

- Led the development of an educational multiplayer Virtual Reality simulation in Unreal Engine 5, enabling up to 32 global users to tour and experience a digital recreation of MIT labs.
- Implemented custom C++ network code to allow low latency player to player connectivity.
- Hand modeled 3D environments using Blender and Autodesk Revit and Recap to create digital twins of MIT locations and machinery.

Technical Skills

Programming Languages: Python, C++, C#, Java, Javascript, TypeScript, HTML, CSS, SQL, Rust

Software: Git, Bash, MongoDB, Unreal Engine, Unity, Godot, Docker, Blender, AWS, Azure

Libraries/Frameworks: Pytorch, TensorFlow, Numpy, Matplotlib, React, Express, Three.js, Node.js, Angular, Vue.js, Next.js