

ARYOMAN M. PATEL

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EDUCATION

Massachusetts Institute of Technology | Bachelor's Degree | Cambridge, MA | September 2020 – May 2024

New Trier High School | High School Diploma | Winnetka, IL | August 2016 – May 2020 | GPA: 5.22/5.33

PROFESSIONAL EXPERIENCES

Intern | Google's Computer Science Summer Institute (CSSI) | July 2020

- Spent 4 weeks with Google software engineers, learning ins and outs of JavaScript and data structures
- Created basic physics engine in JavaScript for vector collision and gravitational pulls
- Designed Pac-Man game in p5.js with unique path-finding algorithms for the ghosts

Lead Application Developer | Unknown Until/Ergo | June 2020 – August 2020

- Freelanced for startup based in Italy with the goal of promoting up and coming artists
- Used Spotify API to auto-subscribe listeners to an artist's playlists and new releases
- Performed ML/AI techniques on user listening data stored in MongoDB to isolate artist's target audience
- Applied various SEO techniques to reach thousands of users a minute during artist album drops

Participant | Mozilla Spring MVP Open Lab | April 2020 – June 2020

- Selective 8-week product development program under the guidance of a Mozilla employee
- Propagated growth of startup (Axotl) via secure login with JWT and Passport.js, email account recovery, React + Redux front-end, and successful containerization and deployment via Docker and AWS

Researcher | IBM's TJ Watson Research Center | Yorkton Heights, NY | December 2018 – December 2019

- Improved the detection rate of lung adenocarcinomas by fitting machine learning models to RNA sequencing data from The Cancer Genome Atlas (TCGA)
 - Analyzed genes through RNA sequencing techniques such as transcriptional profiling and ladder analysis
 - Implemented principle component analysis to significantly reduce the dimensionality of the patient dataset
 - Utilized synthetic minority oversampling technique to fix an imbalance in the patient dataset between cancerous and healthy samples
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Hackathons

SHS Hacks 2020 | Lincolnshire, IL | February 2020

- Utilized express, socket.IO, and Google Maps API to create a site that facilitated real-time communication and donations between privileged schools and underfunded schools

Hack STL 2019 | Schaumburg, IL | August 2019

- Implemented a BFS algorithm to create an interactive map of New Trier High School to assist new students in finding the optimal route between classes

SHS Hacks 2019 | Lincolnshire, IL | February 2019

- Utilized RSA encryption and steganography to create a Chrome extension that allows users to log in to sites via image selection
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Programming Projects

Sole Programmer | War at Sea | Winnetka, IL | July 2020 – August 2020 | MERN stack

- Created WWII navy battle simulation, where a user or computer can generate naval fleets
- Developed algorithm to have computer generated fleets be loosely based on WWII naval squadrons

Sole Programmer | EMT Route Learning | Ithaca, NY | June 2020 – July 2020 | Google Routes API

- Utilized the Google Routes API to create a quiz game that would test the user's directional knowledge

Founder | Axotl | Winnetka, IL | March 2020 – Present | MERN stack, Docker, AWS

- Created platform designed to connect companies with hackathon organizers
- Received \$10,000 AWS credit grant from 1517 Fund, and invited to Mozilla Spring MVP Open Lab