

Ibraheem Amin

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EDUCATION

Lowell High School

High School Diploma

Lowell, MA

August 2020 — June 2024

Greater Lowell Technical High School (Dual Enrollment)

Technical Diploma in Information Technology Services

Tyngsborough, MA

September 2022 — June 2024

Princeton University

B.S.E in Computer Science, Certificate in Operations Research/Financial Eng.

Princeton, NJ

Expected May 2028

WORK EXPERIENCE

Computer Science (CS) Lesson & Syllabus Creator

Project LEARN

Lowell, MA

June 2023 – August 2023

- Worked with MITRE Corporation and team to create interactive and engaging lessons in programming topics, including Python, Next.js 13, and Data Engineering.
- Revised curricula to appeal to a wider range of students with different backgrounds and experiences, and created new curriculum in web development and proprietary scripting languages.

Research Assistant, PROPEL

University of Massachusetts Lowell

Lowell, MA

July 2023 – August 2023

- Wrote a MATLAB integration for analyzing and generating graphs from [video data](#).
- Shadowed lab activities regarding cell culture and particle image velocimetry (PIV) and conducted a vendor analysis on PIV solutions by *Dantec Dynamics* and *LaVision*.

SKILLS, ACTIVITIES, & PROJECTS

Technical Skills: Python(4yrs), Java (3yrs), SQL(4yrs), R(1yr), TypeScript(2yrs), MATLAB(1yr), Next.JS(2yrs), Autodesk Maya, SolidWorks.

Certifications: Artificial Intelligence, IT Technical Support Specialist, CompTIA ITF+, Google Data Analytics, Application Developer, Google Project Management Certificate [+ 35 more](#).

Activities: Google Code Next Engineer, Environmental Club, UML VSA, CASA Volunteer.

Awards: MABPA Administrative Support Team (1st/team captain), MABPA Python Programming (1st)

Temporal & GeoSpatial Data Visualizer

Lead Data Developer

Lowell, MA

June 2023 – August 2023

- Selected and transformed a dataset to fit the required spatiotemporal characteristics for use in Autodesk Maya 2023 using Meshlab. and programmatically converted .csv files to pickle objects.
- Used a combination of Maya Embedded Language and Python libraries, including pickle, maya, and matplotlib to manage application memory management, and procedurally generate [3D animation](#).

ZBot - Wynnecraft Private Guild Management System

Personal Project

Lowell, MA

March 2019 – February 2022

- Developed a guild management system/bot using Python, MongoDB, and Google Apps Script.
- Implemented asynchronous data fetching and database concurrency control using the aiohttp and aiosqlite Python libraries, automated memoization and caching, ensuring availability and providing 30+ secure commands for 300+ private end users to access and manipulate data.
- Used Python's PIL library to generate map images based on ownership defined by outer REST API.

LEADERSHIP EXPERIENCE & ACTIVITIES

The Programming Initiative

Lowell, MA

Co-Founder, Head of Technical Educators

March 2022 – Present

- Solved the lack of CS classes by building a diverse developer community of 98 with colleagues (83% no prior CS experience) through teaching, working with the city, school admins, and teachers.
- Collaborating with students and teachers on this effort resulted in the club being awarded the “[Spotlight on Excellence](#)” at Lowell Public School Committee Meeting and funding from CBO Project LEARN, as well as appearing on the [Lowell Sun](#).

Business Professionals of America (Career and Technical Student Organization)

Lowell, MA

Secretary, Lowell High Chapter

September 2021 – Present

- Placed top in programming and business-related events at the state and national levels.
- Volunteered at various places, including ushering for Certiport’s Certification Lab and the BPA Open Events Testing Center. Led chapter meetings and activities and managed meeting minutes.

MITES Semester (MIT OEOP Program) [View evaluations](#)

Lowell, MA

MITES Semester Scholar

June 2023 – December 2023

- Published on front of [Best of MITES Semester 2023](#) for top article: [From Beethoven to Bytes: The evolution of AI-generated music](#), exploring the rise of generative AI and its effects on the future of music and commentary about the ethical and legal implications of the use of machine learning in art.
- Used Autodesk Maya and MEL Scripting to represent spatiotemporal wildfire data (.csv) from NASA’s MODIS sensor to create a science animation about wildfires for the final symposium.
- Interviewed intelligent systems professor Dr. Lopez-Rincon from UDLAP on generative systems.

MISCELLANEOUS

Code Next Connect Engineer

Remote

Google Code Next (A [Grow with Google](#) program)

September 2023 – Present

- Demonstrated proficiency in problem-solving by passing the 2023 Google Design Challenge.
- One of 250 (Top 10% of applicants) selected to learn computer science taught by Google engineers. Learned teamwork skills alongside the mentorship of many great Googlers. Learn about computer science in seasonal clubs.

Flip The Script

Lowell, MA

Student Panelist

November 2022

- Participated as a student panelist in a roundtable discussion between IT companies, students, and workforce resources to discuss how we can expand the workforce.
- Spoke about various topics. (regarding diverse hiring, employee retention, talent pipeline, etc) and proposed solutions to handling systemic issues hindering the development of the field.
- Featured on the [Lowell Sun](#), [Middlesex 3 Coalition](#), and Project LEARN’s [website](#).

CS Pathways - ([NSF-supported educational outreach initiative](#))

Lowell, MA

Guest Speaker

November 2022

- Interviewed UMass Lowell’s Dr. Fred Martin, SUNY Albany’s Dr. Lijun Ni, and Lowell middle school teachers to assess how to incorporate CS into middle school civic classes for the Middle School Pathways in Computer Science programs funded by the National Science Foundation.
- Spoke about TPI as it currently operates, along with helping provide an insight into what students want and how to extend CS education to underrepresented & underserved students in middle schools across the state.

Languages: Fluent in English & Bengali; Conversational proficiency in Spanish, Elementary Turkish.