# **Alexander Mcneilly**

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#### **EDUCATION**

## Massachusetts Institute of Technology (MIT)

Cambridge, MA

B.S. in Computer Science and Engineering, Minor in Mathematics

Expected 2026

Relevant Courses: Algorithms, Python Programming, C and Assembly, Discrete Math, Linear Algebra

Activities: SHPE, Latinos in Science and Engineering, HackMIT, MIT OpenCode, Poker Club, MIT UPOP, Project Euler

## Skills

Languages: C, C++, Java, JavaScript, Python, TypeScript, Kotlin

Frameworks: React, Node.js, Express, Next.js, Three.js, MongoDB, PyTorch, NumPy, Pandas

Tools: Git, Unix/Linux, Android Studio, Figma, Jira

Concepts: Object-Oriented Programming, Data Structures, Algorithms, Software Design Patterns, Testing

#### EXPERIENCE

#### **MIT EECS Department**

Sep 2023 - Present

6.100A (Intro to CS using Python) Lab Assistant

Cambridge, MA

- Help students in office hours; evaluate student understanding by performing checkoffs
- Develop solutions and debug test cases for problem sets throughout the semester

#### The Spatial Blocks Project (GitHub)

Sep 2023 – Present Cambridge, MA

Software Developer; Co-Founder

• Lead the development and design of a Scratch-like drag-and-drop 3D web development tool

Grao VC
Analyst Intern
Jun 2023 – Aug 2023
Sao Paulo, Brazil

• Implemented open-source decision analysis tools using VBA and Excel, improving startup investment evaluations

• Conducted market research on generative AI, identifying opportunities within the Brazilian startup ecosystem

### Hack Ridge Hackathon

Sep 2020 – Aug 2022

President (2022), Android/Web Developer

Park Ridge, IL

- Oversaw organization of two 24-hour annual hackathons in the Chicago area, impacting over 400 students, through
  workshops, tech talks, and coding contests, securing \$6,000+ in grants, prizes, and sponsorship
- Engineered a color blob detection Android app in Java; Built social mental health studying Android app in Java

## **PROJECTS**

Historic (AI Language History App) - React, TypeScript/JavaScript, MySQL, Socket.io, Next.js, Tailwind CSS, OpenAI API

- Developed interactive language studying app with AI historical figures for 2023 HackMIT hackathon
- Implemented OpenAI chat functionality; Oversaw UI/UX frontend design and implementation

## SupaNotes - React, TypeScript/JavaScript, HTML/CSS

Built a personal dynamic, Markdown-supported, note-taking app for self-studying purposes

### Hygge: A Projection-Based AR Painting App – Processing, P5.js, JavaScript, HTML, CSS

- Co-developed a projection-based AR interactive painting and dancing app, for a Samsung-MIT Media Lab hackathon
- Utilized p5.js (Processing) and PoseNet pose detection to map motion of user and paint strokes

#### Awards

2023 TEDxBoston Speaker – Presented TED Talk on intersection of Generative AI and Augmented Reality
 2023 Citadel East Coast Datathon – Competed in Citadel and Correlation One's spring data science hackathon
 2023 MIT Pokerbots Competition – Won Nintendo Switch as DRW's prize for Highest Sortino Ratio for custom Pokerbot
 2021 MIT MathRoots Certification – Participated in a mathematical talent accelerator hosted by MIT Math Department