

# Alex Mcneilly

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## EDUCATION

### Massachusetts Institute of Technology (MIT)

Cambridge, MA

*Candidate for B.S. in Computer Science and Engineering, Minor in Mathematics*

*Class of 2026 (2025 Possible)*

- **Past Coursework:** Computer Science Using Python, C and Assembly, Discrete Math, Linear Algebra
- **Enrolled Courses:** Algorithms and Data Structures, Python Programming, Principles of Microeconomics
- **Activities:** TEDxBoston 2023 Speaker, Citadel 2023 East Coast Datathon, MIT OpenCode, HackMIT 2023, Society of Hispanic Professional Engineers, Latinos in Science and Engineering, 2023 MIT Pokerbots Competition, CodeForces

## 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; proofread and debug sample solutions for problem sets throughout the semester

### The Spatial Blocks Project ([GitHub](#))

Aug 2023 – Present

*Software Developer and Co-Founder*

*Cambridge, MA*

- Lead the development of Spatial Blocks, a simple, educational, Scratch-style drag-and-drop 3D Web development tool being built with TypeScript/JavaScript, Node.js, React, Three.js (3D JavaScript library), and Next.js

### Grao VC

Jun 2023 – Aug 2023

*Analyst Intern*

*Sao Paulo, Brazil*

- Led the implementation and optimization of open-source probability-weighted decision analysis tools by Ulu Ventures, enhancing quantitative evaluation of future startup investments for Grao; Utilized VBA and Excel to deploy the tools
- Conducted in-depth market research on generative AI for 2 months, identifying its potential opportunities and integration points within the Brazilian startup ecosystem

### Hack Ridge Hackathon

Sep 2020 – Jul 2022

*President (2022), Hackathon Overseer (2022), Head of Marketing (2021), Android/Web Developer*

*Park Ridge, IL*

- Oversaw organization and promotion 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
- Developed a color blob detection mobile app built in Java, Kotlin, and OpenCV for the 2020 competition
- Developed and presented a social mental health studying app built in Java and Android Studio for the 2021 competition

### MIT MathRoots Summer Program

Jun 2021 – Jul 2021

*Student, Competition Participant*

*Remote*

- Participated in a two-week mathematical talent accelerator for nationally selected high school students from underrepresented backgrounds or underserved communities
- Acquired advanced knowledge in discrete math concepts, proofs, probability, combinatorics, and LaTeX

## PROJECTS

### HackChat | *React, TypeScript/JavaScript, MySQL, Socket.io, Next.js*

Aug 2023 – Present

- Developing a web-based Discord-style platform tailored for hackathon organizers to effortlessly set up and manage virtual hackathons in a centralized environment
- Identified demand for such a tool among hackathon organizers when organizing a virtual hackathon in 2021

### ValueAdd | *Node.js, React, JavaScript, HTML/CSS, NoSQL Database (Apache Cassandra)*

Jul 2023

- Developed a web-based CRM personal project designed specifically for venture capitalists to streamline and organize their value-add tickets for portfolio companies
- Recognized a need for such a tool among other venture capitalists while working as a VC analyst in Brazil

### SupaNotes | *React, TypeScript/JavaScript, HTML/CSS*

Jun 2023

- Built a personal dynamic, Markdown-supported, note-taking web app, akin to Google Keep, enabling categorized, easily rearrangeable notes for to-dos and self-studying purposes

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

Sep 2023

- Co-created a projection-based augmented reality interactive painting and dance web app, for the Samsung Project the Future of Wellbeing Hackathon at the MIT Media Lab
- Utilized p5.js (Processing) and PoseNet pose detection to track and map motion of user's movements and paint strokes; projected art on surfaces using Samsung Freestyle projector

## SKILLS

**Languages:** *(Proficient)* JavaScript/TypeScript, Python, Java, SQL, C/C++, HTML/CSS; *(Prior Experience)* Kotlin, Go

**Frameworks:** *(Proficient)* React, Node.js, MongoDB, Express.js, Postgres; *(Prior Experience)* Next.js, MySQL, AWS S3

**Other Tools:** *(Proficient)* Git, Linux, Figma; *(Prior Experience)* Jira, Trello, FigJam

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

**Interests:** Baseball, Basketball, Poker, Graphic Design, Augmented Reality, Philosophy and Ontology, Rap Music Production