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 2022
- 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