

# MADELINE C. BUSSE

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## ABOUT ME

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Passionate software engineer with experience in robotics, AI, and full-stack development across startups, research labs, and digital agencies. Skilled at LLM integration and communication of technical concepts. Background in philosophy and eager to harness technology to empower businesses and inspire people.

## EDUCATION

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**The University of Chicago** | Chicago, IL 2021–2025

*Bachelor of Arts, Double Major in Computer Science and Philosophy & Allied Fields.*

- GPA: 3.676/4.000 | National Merit Scholar.
- Relevant Coursework: Data Science, HCI, Security & Privacy, Programming Languages, Robotics.

**MIT Sloan School of Management** | Cambridge, MA Expected 2030–2032

*Deferred MBA Admit, Early Admission Program.*

**AI Ethics Seminar at Duke University** | Durham, NC June 2024

- Sole undergraduate invited to participate in selective cohort of graduate students and professionals.
- Discussed philosophical and technical texts on AI with emphases on ethical system design and impact.

## EXPERIENCE

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**PMG, AI Software Engineer** | Dallas, TX June 2025–present

- Designed and implemented a Python-based data pipeline to harvest trends across TikTok and Pinterest APIs, visualized using Looker Studio dashboards to inform client marketing strategies.
- Built a full-stack brand health diagnostic system using React, automating optimization recommendations across product, marketing, and UX.

**Zenblen, Front-End Software Engineer Intern** | Chicago, IL July 2024–September 2024

- Designed, prototyped, and implemented UX/UI elements for a robotic smoothie kiosk to address data-driven customer needs and develop brand identity across the kiosk, website, and social media.
- Spearheaded alignment of company goals to marketing efforts such as a loyalty program, collaborating with CEO and marketing team in an entrepreneurial, start-up environment.

**Human Robot Interaction Lab, Research Intern** | Chicago, IL June 2023–August 2023

- Conducted a study on 150+ human participants, working with a team of two researchers to integrate a humanoid robot with ChatGPT and collect data on 20+ statistics per participant.
- Automated collection and statistical analysis of multimodal interaction data using Python, R, and cloud-based storage pipelines.

## COMMUNITY INVOLVEMENT

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**By the Hand Club for Kids, Volunteer** November 2023–May 2025

- Oversaw and tutored an afterschool classroom of 20+ elementary school students once a month.
- Fundraised \$2,000 through personal outreach as a member of the 2024 Chicago Marathon Team.

**Harper Café, Barista** March 2022–May 2025

- Handled customer interactions and ensured high-quality beverage preparation at a busy on-campus café.
- Served 50+ customers during rush hours and performed end-of-day cash balancing.

**Phoenix Outdoor Program, Trip Leader** September 2023–September 2024

- Trained and mentored 18+ students in outdoor leadership and safety, combining logistical planning with real-time problem solving in backcountry environments.

## SKILLS AND CERTIFICATIONS

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**Programming Languages:** Python, R, C, Dart, JavaScript, SQL, HTML/CSS.

**Frameworks & Libraries:** React.js, Flutter, NumPy, Pandas, TensorFlow, Tkinter, Scikit.

**Cloud & Development:** AWS, Docker, Git, Figma, Looker, Jira, Confluence.

**Certifications:** AWS Developer Associate (expected 2025).