

# Zainab Zaneer

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## EDUCATION

**University of Illinois-Chicago (UIC), College of Engineering**

May 2026

**B.S. Computer Science, Minor in Mathematics**

Relevant coursework: Software Design, Data Structures and Algorithms, Machine Organization

**Cornell University | Machine Learning Foundations Certificate, Break Through Tech AI**

Aug 2024

Relevant coursework: Exploratory Data Analysis, Dataset Building, Regression Model Training, Natural Language Model

## RELEVANT EXPERIENCE

**Machine Learning Engineer Intern | Estée Lauder | AI Studio**

Aug 2024 - Present

- Developed a Bayesian Regression Discontinuity model to evaluate and optimize the impact of surprise gift campaigns on customer spending.
- Collaborated with a team of 4 AI fellows and 2 Estée Lauder ML Engineers, delivering biweekly updates, presenting milestones, and preparing for a final presentation on key findings.

**Undergraduate Teaching Assistant: CS 211 Programming Practicum | UIC**

Aug 2024 - Present

- Supported two professors and 17 teaching assistants in delivering course content to 400+ engineering students.
- Led two weekly lab sections of 30+ students, instructing on key topics such as command-line usage, GDB, Valgrind, Git version control, and exception handling in C.
- Hosted weekly office hours, providing one-on-one assistance and debugging on seven course projects, covering dynamic memory allocation, recursion, data structures, and algorithms.

**Software Engineer Fellowship | Headstarter AI**

Jul 2024 - Sep 2024

- Built 5 apps in 7 weeks in a team of 4, utilizing Next.js, Google Gemini, Firebase, Clerk API, and Stripe API.
- Integrated Gemini LLM API to leverage as a customer service chatbot and to generate useful flashcard text.

**Break Through Tech AI/ML Fellowship | BTT | Cornell Tech**

May 2024 - Present

- Selected from 3000+ applicants for a year-long fellowship program to learn AI, ML, and Data Science.
- Completed ML Engineering curriculum of data analysis pipelines, training, and validating ML models, proficiency with ML/AI libraries (Pandas, Numpy, SciKit Learn, Matplotlib), model optimization, and data ethics.
- Gained foundational experience with neural networks, decision trees, random forests, gradient boosting methods, and natural language processing technologies.
- Collaborated with Estée Lauder as a machine learning engineer to develop a model analyzing customer purchase data to optimize surprise gift strategies.

**Business Technology Solutions: IAI Automation Intern | AbbVie**

May 2024 - Aug 2024

- Initiated and led end-to-end process automation, identifying 12 commonly worked routines through collaboration with business technology organizations to streamline and automate workflows.
- Aided in 3 batches of smoke and regression testing AbbVie's internal AI chatbot using Postman prior to releases.
- Developed a prompt library via prompt engineering and configured an internal landing page for all things AI.
- Recorded vertical content documenting interns day-to-day to showcase on AbbVie social media platforms.

**Tech in Residence | UIC | BTT | AbbVie**

Jan - May 2024

- Worked in a team of 4 on a technology project provided by AbbVie that requires problem-solving, design thinking, and developing creative solutions that rely on technology and data.
- Incorporated journey/opportunity mapping, stakeholder analysis, and human-centered research to help develop, test, and present prototype solutions.

PROJECTS

**Predictive RDD ML Model** | Python, NumPyro, Pandas, Matplotlib [github.com/zzaneer086/Unwrapping-Customer-Delight](https://github.com/zzaneer086/Unwrapping-Customer-Delight)

- Leveraged 20K+ customer dataset to analyze yearly spending using Bayesian RDD modeling techniques to extract purchase insights.
- Conducted EDA, bandwidth optimization analysis, frequentist/Bayesian analysis and modeling to identify spending patterns and quantify gift impact.

**Mnemo** | Next.js, Gemini, Firebase, Clerk, Stripe [github.com/NickGroveSE/Mnemo](https://github.com/NickGroveSE/Mnemo)

- Full-stack SaaS flashcard app that allows users to generate, save, and review flashcards on any topic.
- Integrated the Google Gemini API to generate intelligent flashcards based on user-provided topics.

**Customer Support AI Chatbot** | Next.js, Gemini, Firebase [github.com/zzaneer086/Project-3-AI-Customer-Support](https://github.com/zzaneer086/Project-3-AI-Customer-Support)

- Developed owl themed chatbot through Google Gemini API, fitted with user authentication and language support.

**A Touch of Green** | HTML/CSS, JavaScript [github.com/zzaneer086/A-Touch-of-Green](https://github.com/zzaneer086/A-Touch-of-Green)

- Collaborated in a team during a 24-hour hackathon to create a resource site on recycling.
- Built features allowing users to identify recyclable products and locate nearby recycling centers.

**A Dynamically Evil Word Guessing Game** | C [replit.com/@zzaneer086/A-Dynamically-Evil-Word-Guessing](https://replit.com/@zzaneer086/A-Dynamically-Evil-Word-Guessing)

- Developed an interactive word guessing game that dynamically selects challenging words from a strategically maintained database, optimizing difficulty for the player.

AFFILIATIONS & INTERESTS

<b>AI Program Ambassador</b>   <b>Break Through Tech</b>	Sep 2024 - Present
<b>Student</b>   <b>CodePath</b>   Intro to Web Development   Advanced Technical Interview Prep	Aug 2024 - Present
<b>Member</b>   <b>Women in Computer Science</b>   UIC	Aug 2022 - Present
<b>Hackathons</b>   San Francisco, CA   Chicago, IL	Aug 2018 - Present
<b>Mentor</b>   <b>Girls Who Code</b>   High School	Aug 2018 – Jun 2022

SKILLS

**Languages:** Python (Pandas, Numpy, SciKit Learn, Matplotlib), C, C++, HTML, CSS  
**Software:** Git, VS Code, Jupyter, Xcode, OpenAI, Gemini, Firebase