# 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, AI/ML, Language Processing, Data Science

Cornell University

Aug 2024

Machine Learning Foundations Certificate, Break Through Tech AI

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

# EXPERIENCE

## AI Application Software Engineering Intern | Ace Hardware

May 2025 - Aug 2025

- Developed a Retrieval-Augmented Generation (RAG) chatbot within Databricks, enabling 200+ field staff to access documentation efficiently without email queries
- Engineered a document chunk filtering algorithm in Python/LangChain to retrieve context prior to relevance drop-off, allowing for improved retrieval adaptability
- Designed a document search pipeline that prioritizes context from a high-relevance database with fallback to broader sources, boosting accuracy and reliability of generated answers

# Machine Learning Engineer Intern | Estée Lauder

Aug 2024 - Dec 2024

- Developed a Bayesian Regression Discontinuity Design model to evaluate and optimize the impact of surprise gift campaigns on customer spending, accurately estimating a \$20 uplift in targeted segments
- Quantified ROI of 91% for campaigns, showing that a \$10 gift generated \$19 in incremental spend, validating the campaign's profitability
- Delivered actionable insights by compiling model findings into business recommendations and advising adoption of Bayesian methods for future campaign design

#### Automation Analyst 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
- Executed smoke and regression testing on 3 releases of AbbVie's internal AI chatbot using Postman, ensuring production stability
- Developed a prompt library and configured an internal landing page to centralize AI resources across the company

# PROJECTS

## Predictive RDD ML Model | Python, NumPyro

github.com/zzaneer086/Unwrapping-Customer-Delight

- Built a Bayesian Regression Discontinuity Design (RDD) model using Python, pandas, and NumPyro on a 20K+ customer dataset, achieving prediction error under 5% and uncovering key purchase insights
- Performed data exploration and bandwidth optimization with Python, applying frequentist and Bayesian techniques, and delivered actionable findings by visualizing spending patterns in matplotlib

# ${\bf Mnemo} \mid \textit{Next.js, Gemini, Firebase, Clerk, Stripe}$

github.com/NickGroveSE/Mnemo

- Developed a full-stack SaaS flashcard platform with Next.js/Firebase/Stripe, enabling intelligent flashcard creation and subscription-based access
- $\bullet$  Integrated Google Gemini API to generate flashcards automatically, reducing creation time by 80% compared to manual input

#### Leadership & Affiliations

Student   AI4ALL Ignite	May 2025 – Present
AI Program Ambassador   Break Through Tech	Sep 2024 – Present
Student   CodePath (Intro to Web Development, Advanced Technical Interview Prep)	Aug 2024 – Present
Mentor   Women in Computer Science, UIC	Aug 2022 – Present

# TECHNICAL SKILLS

Languages: Python, C/C++, SQL, HTML/CSS, Go

Libraries/Frameworks: NumPyro, pandas, Matplotlib, LangChain, Next.js

**Developer Tools**: Git, VS Code, Databricks, Jupyter, Postman