# Ezra Akresh

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## Education

**Georgia Institute of Technology, Atlanta GA 30313**  May 2029
Bachelor of Science in Computer Science

**University of Illinois Urbana-Champaign, Champaign IL 61822**  August 2023 – May 2025
GPA: 4.0
Completed 4 computer science courses focused on discrete math, C++, and Kotlin

## Experience

**Software Engineering Intern**  May 2024 – August 2025
*PowerWorld Corporation, Champaign, IL*
- Studied SQL and designed a scalable database to store power system data for major electric utilities; migrated ~100M records using Python and integrated a Natural Language to SQL interface to enable intuitive querying
- Revamped technical documentation by adding command examples, significantly improving usability, and reducing onboarding time for new users

**Research Intern**  June 2024 – July 2024
*Wolfram Summer Research Program, Boston, MA*
- Developed and visualized a recursive backtracking algorithm to generate the largest possible grid where each cell is a letter and every row and column forms a valid English word
- Earned *Featured Contributor* recognition for a computational essay with over 5,300 views

**Course Assistant for CS 124 (Intro to CS I)**  January 2024 – May 2024
*University of Illinois, Champaign, IL*
- Provided weekly academic tutoring to 3–4 college students as a Junior in high school, collaborating with a mentor to tailor support strategies; earned promotion to a paid role after one semester

## Extracurriculars

**Lead Programmer**  October 2023 – May 2025
*FIRST Robotics Competition Team 4096: Ctrl-Z*
- Led a team of 3 coders in programming and operating competitive robots, while overhauling onboarding documentation to streamline training for new students
- Mentored 5 younger students in Python, guiding both robotics projects and individual coding initiatives
- Operated robot in 6 competitions, beating team's points-per-match record by 50%+ at international events

## Projects

**Medical Activity Tracker**  May 2024 – August 2024
*Amazon Alexa Skill to track medication schedules and activities*
- Built and deployed Skill with 5+ custom intents (log events, log medications, and retrieve by date/period), integrated with AWS DynamoDB for persistent storage and SES for automated email delivery of medical records

**Modeling Heat Flow on Discrete Structures**  May 2023 – July 2023
*Created Matplotlib simulation to demonstrate Newton's Law of Cooling*
- Presented research poster at Illinois Mathematics Lab undergraduate conference alongside 20+ other projects

## Skills & Interests

**Languages:** Python, Java, C++, JavaScript, Kotlin, Swift
**Frameworks/Libraries:** ReactJS, UIKit, Supabase, Firebase, AWS
**Database Technologies:** SQL, MySQL, PostgreSQL
**Certifications:** US Soccer Federation Referee
**Volunteer:** FIRST Lego League Mentor (2023-2025), Eastern Illinois Foodbank
**Interests:** Robotics, surfing, travelling, eating new foods, soccer

Clifton Strengths Assessment Reflection:

One of my Clifton Strengths is Learner. I demonstrate this strength through my resume in a few different ways. For instance, during my internship at PowerWorld Corporation, I taught myself SQL to create a representation of the power system for natural language querying. Going into that internship, I had no experience with relational databases whatsoever. I had only worked on projects that utilized Firebase and DynamoDB. Another example is from my research internship at Wolfram. My project for the program required me to quickly learn about the recursive backtracking algorithm, once again, a topic I knew nothing about. However, I spent many hours outside of the dedicated time studying various heuristics and approaches to implementing the algorithm. My use of the word "visualized" in the description suggests that I did more than just write a chunk of code to complete a task, but I actually made an effort to understand how and why that code was working.