

# Aaryan Sharma

+1(312)-871-2883 · [sharmaaaryan4012.github.io](https://github.com/sharmaaaryan4012) · [LinkedIn](#) @sharmaaaryan · [GitHub](#) @sharmaaaryan4012

## EDUCATION

**University of Illinois Urbana-Champaign(UIUC)**  
BSLAS Mathematics & CS

**GPA: 3.91/4.0**  
*Expected: Dec 2025*

## EXPERIENCE

**UIC College of Engineering**, Chicago, IL  
Undergraduate Research Assistant

*June 2023 - May 2024*

- Evaluated presidential election prediction models using four methods to find the best results.
- Applied the Brier score system to measure forecast accuracy, manipulate conditions, and automate Brier score calculations for diverse scenarios.
- Modified open-source models for mass production of Brier scores, ensuring compatibility with our research parameters and enhancing efficiency.
- Tested four different state combinations in models to spot differences in results.
- Research Proposal - [LINK](#) (available on my webpage)

**NEC Corporation India**, NOIDA, IN  
SWE Intern

*June - Sep 2024*

- Worked on the Logistics Data Bank(LDB) and Unified Logistics Interface Platform(ULIP).
- Developed a Fleet Management System using APIs of ULIP.
- Coded the system using Python, Java, SQL, HTML/CSS.
- Led a team of interns, conducting reviews, setting targets, and testing code.

## PROJECTS

**Super Health App**

*Feb 2024*

Winner - SparkHacks 2024

- Made a Python-based personal health assistant with multiple aggregated features (Doctor's catalog and prescription manager).
- Integrated a search engine based on an inverted matrix approach using maps.
- Utilized Tkinter to create the GUI for the app, which was connected to a database using Sqlite3.

**BNF SimpleC Parser**

*Apr 2024*

- Developed an F# program to parse SimpleC using recursive-descent parsing.
- Checked SimpleC for semantic errors: variable definitions and type correctness.
- Built a symbol table for variable declarations, checked type compatibility, and issued warnings.

**Chicago Lobbyist Database**

*Mar 2024*

- Developed console-based database app in Python using N-tier design, integrating SQLite.
- Focused on Chicago lobbyists, employers, clients, and compensation for data management.
- Implemented functions for data access and object mapping tiers, testing, and handling database interactions.

**Assembly Attack Lab**

*Apr 2024*

Solved All Phases

- Explored five attacks on vulnerable programs, focusing on buffer overflows and stack manipulation.
- Developed and executed exploit strategies, enhancing understanding of program vulnerabilities.
- Achieved successful string argument injection, showcasing an understanding of security weaknesses and exploitation techniques.

## EXPERTISE

**Languages/Frameworks:** Python, C/C++, R, Java, C#, F#, OCaml, Assembly, Git, Vim, Valgrind, SQL, Shell

**Database:** MySQL, SQLite3, MongoDB

**Courses:** Data Structures, Language and Automata, Machine Organization, Programming Languages & Compilers

## ACHIEVEMENTS

- Dean's List - FA 22, SP 23, FA 23, SP 24
- Crowd Favorite @ SparkHacks 2024