

Eric McCarthy

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EDUCATION

University of Illinois at Urbana-Champaign

May 2022 (Expected)

Bachelor of Computer Science, Minor – Statistics

Champaign, IL

- **GPA:** 3.51 - Dean's List, all semesters
- **Courses:** Data Structures, Discrete Structures, Computer Architecture, Applied Linear Algebra, Advanced Web Development, Probability & Stats for CS, Software Design Studio, Intro to CS

EXPERIENCE

Smart Structures Technology Laboratory

May 2019–Nov. 2019

Undergraduate Researcher

Champaign, IL

- Annotated training data for a neural network designed to identify structural defects in buildings
- Reviewed peer work to ensure accuracy among other researchers

CS 125 Introduction to Computer Science

January 2019–Present

Course Assistant

Champaign, IL

- Held office hours to assist students with Java and CS concepts
- Facilitated weekly labs to teach students assigned lab content and coding problems

International Collegiate Programming Contest

August 2019–Present

Participant

Champaign, IL

- Worked individually and as a team to solve real-world problems efficiently
- Optimized time and space complexity of solutions to algorithmic programming questions

Fermilab National Laboratory

Nov. 2016–May 2018

Software Engineer Intern

Batavia, IL

- Wrote test cases in Python to determine the efficiency and accuracy of specialized chipsets under load
- Collaborated with advisor and project group on presenting test results and findings
- Created documentation for existing code and new testing protocol for current and future project members

PROJECTS

- **Shibemon**
 - Developed in Android Studio as a mobile app
 - Utilized online APIs for procedural generation
 - Won Most Impressive Project competing against 500 participants
- **Civilization**
 - World simulator with synchronous entities and modifiable terrain
 - Utilized a variation of Dijkstra's algorithm for efficient pathfinding computation
 - Focused on object decomposition and ease of expandability

AWARDS, SKILLS, INTERESTS

- **Awards:**
 - **CS 125 Project Fair**, Most Impressive Project (December 2018)
 - **Engineering Visionary Scholarship** (Fall 2019 – Spring 2021)
- **Skills:** C++; Java; Python; Linux; Git; HTML; JavaScript; PHP; MySQL; jQuery; Android Studio; R
- **Interests:** League of Legends (Ranked 400th, played in LA with 30k viewers); cooking; 3D modeling; yoga; building PCs;