

Logan Lucas

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EDUCATION

University of Illinois at Chicago

Bachelor of Science in Computer Science

August 2022 - Present

Expected Graduation: May 2026

- GPA: 3.90/4.00
- Relevant Coursework: Data Structures and Algorithms, Programming Language Design and Implementation, Machine Organization, Systems Programming

SKILLS

Languages: Python, SQL, Java, C++, F#

Technologies: Git, SQLite3, Maven, Linux, GDB, Visual Studio Code, Valgrind

EXPERIENCE

Share Our Spare

August 2023 - December 2023

White Paper Report Specialist Volunteer

Chicago, IL

- Produced an effective white paper analysis of waste disposal of children's items in the Chicagoland area to quantify Share Our Spare's impact on providing an eco-friendly support system for local children.
- Conducted in-depth research and data analysis to provide substantial evidence supporting Share Our Spare's impact.
- Worked closely with a supporting specialist to refine the report, guaranteeing accuracy and overall effectiveness

PROJECTS

CTA Lobbyist Database Application - Python, SQL

github.com/loganlucas13/CTA-lobbyist-app

- Created a robust Python application that allows users to efficiently search for information of various lobbyists within the CTA database using the SQLite3 database API
- Increased program modularity by implementing a three-tiered architecture and assigning specific tasks to each tier

Open Street Maps - C++

github.com/loganlucas13/open-street-maps

- Developed a comprehensive mapping and pathfinding tool using Dijkstra's algorithm to find optimized routes between buildings on the University of Illinois at Chicago campus
- Successfully optimized calculations using adjacency lists to optimize and increase performance significantly

Algorithm Library - Java

- Designed an efficient and user-friendly Java library implementing generic data structures, including lists, queues, and hashmaps
- Developed and executed comprehensive unit and integration tests to ensure algorithm accuracy and reliability across diverse scenarios, rigorously validating each class's methods
- Promoted reusability and maintainability by implementing a modular design pattern, facilitating future expansion

SimpleC Compiler - F#

github.com/loganlucas13/basic-simpleC-compiler

- Created an application that uses fundamental functional programming concepts to compile SimpleC programs with integrated type-checking analysis
- Implemented a modular design through the use of separated lexer, analyzer, and parser components, enabling easier use and expansion