Samuel Skean

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EDUCATION

University of Illinois at Chicago

Chicago, IL

Master's of Science in Computer Science

Aug. 2024 - Expected May 2026

• **GPA**: Not Yet Known

• Relevant Coursework: Operating Systems, Compilers, Cloud Computing.

University of Illinois at Chicago

Chicago, IL

Bachelor of Science in Computer Science

Aug. 2020 - May 2024

• **GPA**: 3.93/4.0

• Relevant Coursework: Web App Development, Data Structures, Systems Programming, Programming Language Design, Principles of Concurrent Computing, Systems Performance and Concurrent Computing, Graphics.

TECHNICAL SKILLS

Languages: C/C++, Rust, Java, C#, Dart, Swift, Python, SQL (SQLite), JavaScript, HTML/CSS, F#, OCaml, Matlab,

Bash, AWK, x86 Assembly (AT&T)

Frameworks/Libraries: JavaFX, React.js, Flutter, Axum (web framework), Matplotlib, WebGL2, p5.js

EXPERIENCE

CS Teaching Assistant (Undergrad and Grad)

January 2023 – Present

UIC

Chicago, IL

- Helped students with syntax and Data Structures (lists, trees, hashmaps) in C++
- Helped students understand database, functional, and concurrent programming in a Survey Course
- Helps debug simple embedded projects in C on Arduino
- Proctored exams and labs, giving short lessons on related topics

Student Ambassador for National Science Foundation Engineering Scholarship UIC

August 2024 Chicago, IL

• Taught a short, custom lesson on algorithmic thinking, and helped with lessons on logic gates

• Offered advice on classes, professors, and skills relevant to CS and engineering

Information Technology Support Specialist

August 2021 – December 2022

UIC Technology Solutions

 $Chicago,\ IL$

- Communicated with managers to help with everything from enrollment to software troubleshooting
- Demonstrated patience with older/technology-unfamiliar people and those in stressful, unfamiliar situations
- Troubleshooted new services and software packages daily, keeping track of overlapping systems and the credentials they take

PROJECTS

Path Tracer and Bezier Drawer | Rust, SDL2, pixels, winit, serde

February 2024 – August 2024

- Developed a simple path tracer (a kind of 3D renderer), mostly following Raytracing in One Weekend by Peter Shirley et al.
- Used JSON to create a format to represent the world, and randomly generate spheres within that world
- Added a command-line frontend and a concurrent graphical preview of the rendering
- Wrote a tool to draw bezier curves and splines, with a simple GUI

Tracing Garbage Collector $\mid C$

December 2022

- Implemented a mark-and-sweep garbage collector in C
- Created a simple memory allocator using sbrk()
- Manipulated pointers to find all allocated, unused memory on the heap and free it without the need for delete statements