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 — August 2024
UIC — *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 | *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