Yanni Speron

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Work Experience

Research Software Engineer | Part-time | UIC WTSE

Nov 2024 - May 2025

- Full-stack software engineer utilizing C, Python, JavaScript, and HTML working on an intraoral capacitive touchpad.
- Wrote a custom WebGL backend to avoid redraw and sped up render time by 978% when redrawing.
- Built a sensor characterization and graph generation application in Python for profiling touchpads.

Software Development Engineer | Full-time | GetYourThing, Inc.

Nov 2022 - Nov 2024

- Developed a recommendation and pricing engine in C++ that was 98% more efficient than existing software.
- Lead full-stack software development of internal tools using Java, Kotlin, and Swift in an Agile environment.
- Created data manipulation tools in Python using SQLite3 and a Node.js REST API.
- Managed deployment using Kubernetes, Docker, and CI/CD pipelines.

Junior Associate Software Engineer | Full-time | NetherRealm Studios

Aug 2021 - Jun 2022

- Contributed to the development of AAA video game Mortal Kombat 1 at a Warner Bros. Games subsidiary.
- Developed the backend system to manage suspending and resuming game fibers and threads.
- Used JIRA and Perforce to work in an Agile environment on a massive C++ codebase.

Software Engineering Intern | *Internship* | **UIUC HCESC**

May 2021 – Jul 2021

- Lead C# developer on an interactive Unity-based animal spaying simulation for the UIUC College of Veterinary Medicine.
- Embedded and hosted the hardware accelerated simulation on a website so it could be used in course material.
- Worked with designers, artists, and reference experts in an Agile environment.

Skills

Programming Languages: C++, C, Python, SQL, Java, C#, JavaScript, Swift, GLSL **Rendering Frameworks:** OpenGL, React, WebGL, UIKit, Unreal Engine, Unity

Computing Frameworks: Modern C++ STL, PyTorch, Pandas, NumPy, OpenCL, Spring Boot, Flask

Organizational Tools: Confluence, JIRA, Make, Git, Perforce VCS, Agile methods, GitHub Actions, CI/CD pipelines

Mathematical Foundations: Multivariable Calculus, Linear Algebra, Differential Equations, Discrete Mathematics, Statistics, Combinatorics, Optimization, Graph Theory, Calculus-based Physics

Soft Skills: Critical thinking, time management, problem-solving, effective communication, continuous growth, collaboration

Education

University of Illinois at Chicago, College of Engineering

May 2025

- B.S. in Computer Science, cum laude, 3.71 GPA
- 99th percentile in graduating class ETS Major Field Test

Honors and Awards

Hack Ridge hackathon winner and recipient of 1517 Fund grant

Mar 2020

Awarded the first-place prize of an annual 24-hour coding competition with 200 other participants.

BrickHack 7 Best Newbie Hack

Feb 2021

• Awarded first-place prize of the "Best Newbie Hack" category with 400 other participants.

Dean's List University of Illinois at Chicago and Michigan State University

Multiple

Michigan State University attended before transferring to UIC.

Personal Projects

Fractyne: C++ Vulkan-based animated shader generation studio with signed distance field (SDF) rendering.

Andromeda: C++ cross-platform performant OpenGL 3D renderer with physically based rendering (PBR).

Atlas: C++ cross-platform game engine with Bullet3D physics and OpenGL Blinn-Phong shading.

Dynama: C++ physics engine with broad-phase, narrow-phase, and 2D/3D convex hull generation.

Smart Bike Helmet: Swift/UIKit/Arduino gyroscopic bike helmet with turn signals and BLE companion app.

Battleship: Java/JavaFX fully featured networked multiplayer Battleship game in 3D.

Website: React portfolio site showcasing some projects.