NICKOLAS SIMONS

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TECHNICAL SKILLS

Languages: C, C++, C#, Lua, Python, Java, Haskell, OCaml, SQL, JavaScript
Frameworks/Tools: Unreal Engine 5, Unity3D, Git, Perforce, Jira, Agile, Haskell Stack

EDUCATION

University of Illinois at Urbana-Champaign August 2022 - May 2025
Bachelor of Science in Computer Science GPA: 3.94
Game Studies and Design Minor

Illinois Institute of Technology August 2021 - May 2022
Bachelor of Science in Computer Science GPA: 4.00

WORK EXPERIENCE

stu/dio – Programming Lead · Champaign, IL April 2024 – Present
Work-for-hire studio at the University of Illinois developing educational games and research tools for faculty

- Collaborated with cross-functional teams to draft technical design documents and architect modular systems for interactive applications
- Designed and implemented gameplay feature sets in C++ with a focus on accessibility, performance, and usability in educational environments
- Integrated automated code review tools into a Perforce-based workflow and aided in a studio-wide transition to trunk-based development pipeline.
- Worked with a team of 10 engineers across 6 concurrent projects, participating in code review, sprint planning, and conducting interviews for new hires.

PROJECT HIGHLIGHTS

VRchaeology (stu/dio, UE5, C++) May 2025 – Present

- Designed a modular quest system and editor for guiding user actions using C++, enabling reusable scripting logic and contextual user prompts.
- Developed an interactive, tool-based excavation system in C++ simulating surface digging and stratigraphic layer analysis.

Master Dancer VR (stu/dio, UE5, C++) May 2024 – Aug 2025

- Implemented a system for anchoring and rendering dialogue in 3D space for VR applications, with support for localization.
- Programmed two quantized movement minigames and created modular, data-driven level authoring tools to streamline content creation for designers

Card Battler RPG (Personal, UE5, C++) Jan 2024 – Dec 2025

- Implemented lightweight effect-based card and item combat system with card genre and resource restriction features.
- Created data-driven tools enabling card assets and enemies to be generated from design spreadsheets.
- Developed procedural link-based dungeon generation system for dungeon graphs.

Othello (Personal, Haskell, Python) May 2022

- Modeled the Othello game with variable board sizes and a computer-controlled opponent using minimax algorithm on a pruned game tree in Haskell
- Created computer vision program to determine game state from picture of an Othello board using Hough transform.