# Stephen A. Hough

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Software engineer with multiple products shipped end to end.

## Experience

**Independent Software Developer** **Jan 2021 — Present**
*Hough Studio*

Built, shipped, and maintained independent PC/Mac games and interactive software, owning engineering, design, platform integration, content pipelines, and post-launch updates.

- Shipped **Golf Around**, a multiplayer PC/Mac golf game featured on Steam's bestseller list (94% positive).
- Reached 20M+ views across creator and player videos on YouTube.
- Supported 2,000+ user-created levels, custom 3D model imports, and multiple major content updates.
- Shipped **Golf Around 2**, a sequel with redesigned systems, expanded content, and new technical architecture.

**Network Engineer, Contract** **Mar 2024 — May 2024**
*Blinkmoon Games* *Vancouver, BC (remote)*

- Improved session flow, stability, and performance through network programming.
- Optimized shader and external package compilation, achieving order-of-magnitude speedups.

**Engine Programmer** **Sep 2018 — Oct 2020**
*Cybernetic Entertainment* *Dallas, TX*

- Built edutainment prototypes involving robotic characters, real-time animation, tutoring flows, and interactive gameplay.
- Built a piano tutor prototype that parsed arbitrary MIDI files, simplified arrangements into playable note sequences, generated finger assignments, and rendered performances with inverse kinematics.
- Built a chess tutor prototype with a custom chess engine, move-evaluation logic, and inverse-kinematic character animation.

## Selected Projects

**Setna (Vesuvius Challenge)** *2026*
Built a cloud GPU pipeline that reconstructs and flattens papyrus surfaces from public segmentation data, renders CT slices along each surface, and runs ink detection. Automated batch scans and preview generation.

**RPGenius** *Ongoing project*
Building an AI-powered RPG creation application. From a prompt, it builds cell-based worlds, terrain, quest lines, 3D models, and other content using a modular data format designed for AI integration.

**IISolver: AI Poker Solver** (Original repository) *Ongoing project*
Developed a CFR+ poker solver for an undergraduate thesis focused on high-performance computing with MPI (advisor: A. X. Jiang). Now revisiting the work with a new implementation.

**MIDI Magician**
Built a music visualization and piano education system with MIDI parsing, timeline playback, scrubbing, and synchronized 3D animation.

## Education

**Bachelor of Science in Computer Science** **May 2018**
*Trinity University*

## Additional

**Technologies** C#, C++, Python, Unity, Unreal

**Interests** Chess Expert (2070 FIDE, 2600+ online rating) • Piano player & composer • Japanese speaker