

# Jonny Hopkins

Game Designer, Creative Developer

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[jwhop.github.io](https://jwhop.github.io)

## EDUCATION

### Parsons School of Design, The New School

*Master of Fine Arts, Design and Technology, 2024*

### University of California, Davis

*Bachelor of Science, Computer Science, 2019*

*Bachelor of Arts, Cinema + Digital Media, 2019*

## SKILLS

**Programming Languages:** C, C++, C#, JavaScript, Python, GLSL, HLSL, Typescript

**Game Engines:** Unity, Unreal Engine 4/5, Godot

**Prototyping:** Arduino, Blender, Adobe Suite

**Technical Expertise:** Vector Math, OOP Design Patterns, Game Physics, Procedural Animation

## PROFESSIONAL EXPERIENCE

### Creative Developer, Fall 2019 – Present

*Schüco USA, New York, NY*

- (current) Writing a typescript library executing an AST for window / door / façade visualization by breaking down assembly (extrusions, translations, mitering, notching) into modular 3D vector operations, some using CSG
- Lead three.js development on Building Physics Solver, an Angular cloud-based calculation tool that simulates structural, thermal, and acoustic usability of windows / façades for architects in Germany, France, and the United States
- Developed system for on-the-fly three.js 3D model generation of sliding doors for fabricators on e-commerce website by utilizing extruded geometry, 3D CSG boolean operations, and custom data structures of part information
- Developed multiple training simulation games using Unreal Engine 4 for new fabrication employees to teach them about types of window vent openings and the process for window assembly
- Wrote C++ Software in Unreal Engine 4 to enable clients to make their own 3D animations of window part construction for a unified documentation library and for sales proposals

### Part-Time Faculty, Fall 2024

*Parsons School of Design, The New School, New York, NY*

- Served as additional faculty for BFA Game Development course “Games Core: Systems,” where students learned how to implement game states, coroutines, and procedural generation in games
- Taught sections, drafted weekly assignments, and gave individual feedback

### Developer, Designer, Artist, January – May 2024

*ONSZ Studio (Thesis Project)*

- Modeled, rigged, procedurally animated, programmed, and made custom shaders for several different animal-themed character controllers, including stag beetles, turtles on scooters, and frogs.
- Rapidly prototyped different sports-themed multiplayer gameplay mechanics involving novel forms of player control

## PERSONAL WORK / ACTIVITIES

### Member, boshi's place

- Responsible for curating and facilitating games-related community events with average attendance of ~40 in Brooklyn, NY

### Artist, Plunderludics Working Group

- Member of group making video game collages out of ‘sampling’ other video games as raw material
- Featured in galleries / press worldwide, made commissioned work for Hong Kong Baptist University

### Solo Development

- Constantly making new prototypes, new controllers, new tiny games for fun
- Works featured in independent games festivals worldwide (AMAZE Berlin, MAGfest, Indiecade)