

# HEXUN (HERSHEY) ZHANG

Durham, NC | 200275zhx@gmail.com | +1 239-565-0417 | [hexun-zhang-portfolio.com](https://hexun-zhang-portfolio.com) | [linkedin.com/in/hexun-zhang](https://linkedin.com/in/hexun-zhang)

## SKILLS

- **Game Development** - Unreal Engine (Blueprint & C++), Unity, Playdate, Perforce, Jira
- **Programming** - C++, Python, GLSL, OpenGL, SDL, Git
- **3D Modeling & Animation** - Maya, ZBrush, C4D, Marvelous Designer, Substance Painter, Octane

## PROFESSIONAL EXPERIENCE

**Geopogo** | Gameplay Programmer | Part-time | Berkeley, United States

May 2026 - Aug 2026

*City-building simulation game in Unreal Engine 5*

- Wrote the city grid in C++, a chunked subsystem driving placement, NPC navigation, and mapping.
- Optimized performance: cut draw calls and actor ticking, added chunk loading, tuned Mass entity LODs.
- Built minimap & full map that redraw live from city grid as players build, tunable in DeveloperSettings.
- Built the character customization level, storing presets as Data Tables tracked through Asset Manager.
- Rebuilt the UI on Common UI for centrally tunable styling, adding reusable widget components.
- Migrated from GitHub to a Perforce server on Google Cloud, and set up Jira for task tracking.

**Cosmic Labs Studios** | Lead Level Developer | Durham, United States

Aug 2025 - Now

*First-person puzzle traversal game in Unreal Engine 5*

- Lead a cross-disciplinary team of 7, directing technical and design decisions on greybox prototypes.
- Assign and track tasks in Jira, manage Perforce version control, coordinate schedules and milestones.
- Build Blueprint and C++ tools for puzzle designers to speed up iteration and testing.
- Design level layouts and traversal flow, tuning mechanic pacing and learning curve through playtesting.

**Alfred University** | AI Technical Specialist | Alfred, United States

Nov 2024 - Aug 2025

- Researched and integrated LLMs and ML models into artist and faculty creative workflows.
- Built a pattern-generating Sudoku solver in C++ using backtracking with MRV and degree heuristics.

**Kongmie Technology Co., Ltd** | Game Designer | Shanghai, China

Jun 2023 - Aug 2023

*Third-person open-world puzzle traversal game in Unreal Engine 4*

- Implemented player controls, interaction feedback, and gameplay VFX.
- Rigged and animated aircraft in Maya, built cloth simulation, and delivered the flight traversal system.

## PROJECT EXPERIENCE

**Custom Game Engine & 2D Rogue-like Game** | C++ & OpenGL

Jul 2024

- Engineered a C++/SDL2 game engine (AABB collision, camera VFX, GLSL real-time reflections).
- Developed a 2D pixel-art roguelike platformer with PS controller + keyboard input using the engine.

**Agent Navigation System** | C++

Apr 2024

- Built a path-finding system using A\* search to find optimal routes in a grid environment.
- Used STL containers for node management and a priority queue for  $O(\log n)$  node expansion.

## EDUCATION

**Duke University**, Durham, United States

Aug 2025 - Expected Aug 2027

- **Master of Engineering - Game Design, Development, and Innovation**
- **Relevant Coursework:** Unreal Engine Game Development, Critical Analysis of Video Games, Programming for Game Development, Game Production Management, Traditional AI, Technical Art

**New York University**, New York, United States

Aug 2021 - Sep 2024

- **Bachelor of Arts - Interactive Media Art (Dean's List)**
- **Relevant Coursework:** Programming in Games (GLSL), Artificial Intelligence, Object Oriented Programming (C++), Data Structures and Algorithms, Networked Media, UI/UX Design