# Spencer Chang

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## EDUCATION

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| **University of Southern California** | **Los Angeles, CA** |
| **Major in M.S Computer Science** | August 2022–Present |

**GPA:** 4.0

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| **Major in B.S Computer Science (Games)** | August 2020–May 2023 |

**GPA**: 3.943

## EXPERIENCE

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| **Scopely – Boundless Studios** | **Culver City, CA** |
| **Software Engineering Contractor** | June 2022–Present |

- Creating feature-work, quality of life changes, and bug fixes for Marvel Strikeforce. Writing C# and Javascript (NodeJS). Worked as an automation engineer for an automated integration testing tool.

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| **USC Viterbi** | **Los Angeles, CA** |
| **Course Producer (Undergraduate Teaching Assistance)** | January 2022–May 2022 |

- Held weekly office hours for answering student questions and proofread course materials (exams, homework assignments, answer sheets) for Discrete Methods in Computer Science (CSCI170). Caught two groups of cheaters on two separate exams.

## PROJECTS

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| **GDMUT – *Tool* – Creator** | Fall 2023 |

- Created an open-source lightweight unit testing tool for C# Godot projects with 40+ downloads.
- Loads and performs tests at blazingly fast speeds by utilizing multithreading.

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| **Blindsight: War of the Wardens – *Advanced Game Project – Gameplay Programmer*** | Fall 2022–Spring 2023 |

- Implemented specifications given by designers to create a player free-flow combat system in the Unity Engine.
- Worked closely with other engineers, designers, and QA testers to fix bugs and write new features.

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| **Project Gacha – Full-Stack Programmer** | Summer 2022–Present |

- Writing REST API Axum server in Rust and using MongoDB to store and retrieve player and static data.
- Created an admin panel page using the Tera HTML templating. Creating a UI-based client in Godot (C#).

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| **OpenGL Ray-Tracer – *Tool*** | Spring 2022 |

- Programmed multithreaded CPU-based raytracing algorithm rendered in OpenGL.
- Implemented anti-aliasing and recursive raytracing features.

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| **Dreamland Confectionary – *Indie Video Game – Gameplay Programmer*** | Fall 2022 |

- Created Unity scripts, debugged codebase, and fixed bugs.
- Collaborated in sprint planning and finished product requirements by assigned timelines.
- Communicated task requirements in collaboration with artists, designers, and other engineers in weekly labs. Implemented gameplay features, systems, and entity AI behavior.

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| **King of Rats – *Video Game – Engineer and Designer*** | Spring 2021 |

- Wrote AI behavior scripts for Unity Engine and conducted two playtest sessions (11 players in total) to quantify player engagement and game balance. Analyzed collected playtest data to guide design and development.

## LEADERSHIP

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| **Corpus Callosum (CoCa)** | **Los Angeles, CA** |
| **Vice President** | September 2020–May 2022 |

- Planned member recruitment and semester activities. Expressing creativity through animations and generative art programs in *p5.js*. Awarded 1st place in the CoCa Final Project competition. Assisting club members in brainstorming and creating group projects and technologies.

## RELEVANT COURSEWORK

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| - Linear Algebra and Differential Equations | - Introduction to AI | - Differential and Integral Calculus |
| - Discrete Mathematics | - Computer Graphics | - Game Engine Development |
| | - Video Game Programming | - Web Technologies |

## SKILLS

**Programming Languages:** C/C++, C#, Java, Typescript/Javascript, Rust
**Experienced In:** Debugging, Version Control (Git), Unity, Godot, OpenGL, NodeJS, Vue, MongoDB, Axum
**Spoken Languages:** English, Mandarin