# Chase Southgate

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## Education

### University of Nevada - Las Vegas

May 2026 Las Vegas, NV

Bachelor of Science in Computer Science

- Organizations: Layer Zero (Cybersecurity Club), Rebel Game Devs
- Relevant Coursework: Software Design, Data Structures, Algorithms, Interface Development

#### Experience

#### Private Computer Science and Software Tutor

August 2021 - Present

Freelance Tutor

- Delivered customized one-on-one and general tutoring for Computer Science in Back-end Object-Oriented programming languages such as C++, Lua, and Java
- Led and taught a dynamic technical curriculum while cultivating a closed-community for 25 highly engaged students

## Lead Game Engineer and Studio Founder

**August 2022 - August 2023** 

Independent Roblox Game Studio

- Lead Script Developer and Founder of a game studio based on the Roblox platform.
- Programmed physics-based movement scripts and asset based action scripts for deployment in final production. implementing 35+ local and client scripts in Lua using Roblox Studio.
- Optimized both client and server-side frameworks to integrate user commands and developed scripts reducing server loads by 45%.

## **Projects**

**Virtual Reality Development** | C++, Unreal Engine 5, Virtual Reality, 3D Modeling, Game Engineering

- Programmed VR client side physics based movement, climbing, and swordfighting script systems.
- Developed with regards to spatial mapping and audio, dynamic camera augmentation, and virtual weight distribution using Unreal Engine's C++ based game development environment.
- Designed and modeled 15+ character and prop assets and exported from Blender 3D software, then implemented in conjunction with Virtual Reality Controls to make functionably interactive.

Dynamic HTML DataScraper | HTML, Python, BeautifulSoupAPI, Requests, Webscraping

- Engineered versatile web scraping scripts extracting HTML data modularly employing BeautifulSoup and Requests libraries capable of parsing 10,000 objects every second.
- Integrated efficient data storage and translation system facilitating management of scraped objects to designated files/formats.

Autonomous Discord Administration Bot | Python, DiscordAPI, Discord, Automation, User Handling

- Developed autonomous Discord management scripts deploying real-time server commands and user content monitoring utilizing Python and DiscordAPI.
- Implemented a modular bot architecture that resulted in a 150% increase in scalability, allowing for seamless handling of 50+ concurrent users

Mountain - Roblox Physics Simulator | Lua, Roblox Studio, Blender, Animation Rigs, Game Development

- Developed "Mountain", a gravity based simulator game, showcasing and testing the limits of World Development, the Physics Engine, and Rendered 3D models on the Roblox Studio development platform
- Applied body velocity and instances of force vectors to simulate gravity and anti-gravity exertion, later implemented to make calculated launch trajectories in any given direction.
- Full Game development stack, including Programming Tool scripts integrated with High-Resolution 3D models and Rig Animations in Blender, and also designing VFX elements natively on Studio.

#### Relevant Skills

Languages: C++, Python, Lua, HTML/CSS, Java, JavaScript

Framework/Technologies: Visual Studio, Shell, Git, Github, Blender, Unreal Engine 5, Adobe Creative Suite