

CHASE SOUTHGATE

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Education

University of Nevada, Las Vegas

Expected May 2026

Bachelor of Science in Computer Science

Las Vegas, NV

- **Organizations:** Layer Zero (Cybersecurity Club), Rebel Game Devs
- **Relevant Coursework:** Software Design, Data Structures and Algorithms, Systems Programming

Experience

Incoming Software Engineer Intern (XR Development)

Starting June 2024

NASA

- Expected XR development team building immersive VR/AR/MR simulations using Nvidia Omniverse and UE5

Augmented Reality Development Extern

March 2024 – Present

Snap Inc.

- Designed and Implemented Augmented and Mixed Reality experiences in the Lens Studio Development Environment, utilizing JavaScript, SnapAPI, and 3D assets from Blender 3D computer graphics software.
- Built 3D World Objects and VFX emitters to simulate real-time object interaction and AR position changes, in conjunction with Perspective and Orthographic tracking Cameras.
- Engaged in immersive technical training and workshops of AR lens development within the Snap Lens Studio, acquiring proficiency in advanced techniques and methodologies in AR design.

Software Engineer Intern

January 2024 – March 2024

BLT SMRT

- Worked closely with Software Developers and Architects to create Contracted and Open-Source architecture tools and software, specifically in Autodesk environments such as AutoCAD and Revit
- Conducted Product Code optimization for (BIM) architectural modeling software within the .NET framework using C#. Additionally Providing Inline Documentation for the functionality of each code segment.
- Programmed and deployed Node.js telemetry server endpoints to collect product activity from PostgreSQL server, developing separate endpoints to gather SQL query results, database entries, and specific action types.

Game Developer 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 reducing server loads by 45%.

Projects

UE5 Virtual Reality Development | C++, Unreal Engine 5, Virtual Reality, Blender, 3D Modeling

- Led the development of a virtual reality game that combined the climbing mechanics of 'The Climb' with the combat experience of 'Blade and Sorcery' using Unreal Engine's C++ based game development environment.
- Developed Virtual Reality movement and Combat scripts with regards to realistic collision interactions, dynamic grabbing mechanics, and virtual weight distribution on 15+ Blender developed assets.

Dynamic Web 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.

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

- Developed "Mountain", a physics based simulator game on the Roblox Platform, showcasing the Gravity Engine on the Roblox Studio Environment in tangent with 3D models and WorldBuilding assets.
- Applied instances of body velocity and force vectors to simulate gravity and anti-gravity exertion, later implemented to make calculated launch trajectories in given directions.

Relevant Skills

Languages: C++, C#, Python, JavaScript, Lua, HTML/CSS, SQL

Framework/Technologies: Docker, .NET, Shell, Git, Blender, Unreal Engine 5, Adobe Creative Suite