Andy Strong

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EDUCATION:

University of Colorado at Boulder | *B.S. in Computer Science* | 2021 - 2025 (expected)

- GPA: 3.98
- Relevant Coursework: Algorithms, Data Structures, Discrete Structures, Computer Systems, Linear Algebra, Software Dev. Methods and Tools, Introduction to Robotics

EXPERIENCE:

Co-Director | *Hack CU* | Jul 2023 - Present

- Planning Hack CU 10, the largest hackathon in the entire rocky mountain region! Last year we had over 200 participants from all over the USA and other countries. During the hackathon, we also host workshops for commonly used technologies (e.g. Git) and career building with our sponsors.
- Responsibilities: Guiding each of the teams, which include tech (creating and maintaining website), marketing/recruitment, logistics, and finance.

AI Research Assistant | *CLEAR at CU Boulder* | Jun 2023 - Present

- Working with PhD student Mary Martin at CU Boulder's CLEAR lab on natural language processing (NLP) research. We're currently developing a novel way to encode and process spatial information about a 3D scene. This allows us to efficiently identify objects in a scene based on their spatial relationships with others.
- Example Application: tell a robot to move objects by describing their relative position: "Put the red block on top of the block to its left". This is useful in educational settings where an instructor can use this robot as an assistant. Without our method, processing spatial characteristics like "left" would be a lot slower.
- Technologies: Python, Tensorflow, NumPy, Ubuntu.

Code Sensei | *Code Ninjas* | Jun 2020 - Aug 2023

- Taught kids aged 6 - 14 basic JavaScript through web game development. Worked with other Code Senseis to lead various summer camps and tailor the curricula to the knowledge of the current group.
- Summer camps include, but are not limited to: Making Minecraft modifications using MCreator, Game development in Roblox using Roblox Studio, 3D design using Tinkercad.

NOTABLE PROJECTS:

Workout Wizard | Jun 2023 - July 2023

- Developed a full stack workout tracking app (it's live now!). Users can create accounts and add workouts with exercises from the API Ninjas exercise API.
- Users can do workouts and save the number of sets and reps per exercise (stored in Postgres database).
- Technologies used: JavaScript, HTML, CSS, Express.js, Node.js, PostgreSQL. GitHub Link

3D Building Game | Aug 2022 - Feb 2023

- Created a Windows desktop game without a game engine (from scratch) where the player can use a variety of building blocks to create a 3D scene. The player can save these scenes and also destroy them in real time. Project is featured on my GitHub page (with video demo).
- Notable features: Physics Engine, 3D Collision Detection, OpenGL Graphics.
- Technologies used: C++, GLEW, GLFW, GLM

My Skills: Python, JavaScript, Git, HTML, CSS, C++, OpenGL, Node.js, Express.js, PostgreSQL, Linux.