Akash Nelson

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EDUCATION

University of Houston

B.S. in Computer Science, Minor in Mathematics   *Expected Graduation Date: May 2025*

Relevant Coursework

Algorithms and Data Structures, Operating Systems, Computer Organization and Architecture, Discrete Math

EXPERIENCE

NASA - L'SPACE Mission Concept Academy   **Sept. 2023 - Dec. 2023**

Program Analyst
- Partnered with **13 students** in designing a cost-effective probe for Enceladus, targeting potential life
- Formulated the mission schedule to ensure timely delivery, reducing deviations by **11%**
- Optimized budget allocation with a **13%** reduction in project costs without compromising objectives

NASA - Proposal Writing and Evaluation Experience   **Jan. 2024 - Present**

Proposal Writer
- Led a **9-student** research in developing AI algorithms for robotic swarm intelligence in planetary exploration

PROJECTS

Aero Maestro | *TypeScript, SvelteKit, TailwindCSS, Flask, Figma*   **Feb. 2024**
- Developed a full-stack travel app for optimizing routes and prices based on user preferences
- Designed the user-interface using SvelteKit & TailwindCSS, ensuring usability
- Implemented Google Gemini natural language processing and Amadeus APIs to retrieve real-time flight data
- Built the backend infrastructure using Flask to handle API calls, data processing, and business logic

Portfolio Website | *JavaScript, HTML, CSS*   **Jan. 2024**
- Engineered a responsive website layout for various screen sizes
- Integrated jQuery API to improve user interaction and functionality

Cult of the Crow | *C#, Unity, Blender*   **Aug. 2023 - Dec. 2023**
- Collaborated with a team of **8 developers** to create an interactive 3D game
- Designed 3D assets using Blender for immersive cutscenes and in-game models
- Enhanced player engagement by **34%** through user-tested feedback, refining gameplay mechanics
- Achieved **50+** downloads within the first month of release

Message Decompressor | *C++, POSIX Threads, Mutex, WSL*   **Apr. 2023**
- Implemented multi-threaded Huffman decoder using POSIX threads to efficiently decipher encoded data
- Utilized mutex and conditional variables to ensure thread safety and synchronization
- Reduced runtime by **25%** with multi-threading, improving data processing and system responsiveness

EXTRACURRICULAR

IEEE-NSM   **Jan. 2023 - Aug. 2023**

Tutoring Chair   *Houston, TX*
- Managed the organization's tutor/mentor sector of **60+** members
- Assisted in developing the workshops by conducting research and promoting the workshops

CougarCS   **Aug. 2022 - Aug. 2023**

Tutor   *Houston, TX*
- Instructed **100+** students over the fundamentals of C++, Python, and Data Structures
- Conducted problem-solving sessions, resulting in a **17%** increase in student grades

TECHNICAL SKILLS

Languages: C++, C#, TypeScript, JavaScript, HTML, CSS, Python, C, Java, Lua
Engines/Frameworks: SvelteKit, TailwindCSS, Flask, Unity, LÖVE
Developer Tools: Git, Figma, Blender, Siemens NX, Tiled, Linux, Visual Studio, VS Code, Eclipse