

# 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*

- Worked with **13 students** in designing a cost-effective probe for Enceladus, targeting potential life
- Tracked progress with Project Manager, Resource Manager, Lead Systems Engineer, and Chief Scientist
- Aligned mission schedule with milestones, reducing deviations by **10%** for timely critical milestone delivery
- Optimized budget allocation, achieving a **15%** reduction in project costs without compromising objectives

### NASA - Proposal Writing and Evaluation Experience

**Jan. 2024 - Present**

*Proposal Writer*

- Will participate in proposal writing led by the Marshall Space Flight Center Chief Technologist

## PROJECTS

### Aero Maestro | *TypeScript, SvelteKit, TailwindCSS, Flask, Figma*

**Feb. 2024**

- Developed a full-stack web application that enables users to find travel preferences with optimal routes and prices
- 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**

- Created a responsive website layout ensuring seamless user experiences across various devices and 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 a 3D psychological horror game
- Designed 3D assets using Blender for immersive cutscenes and in-game models
- Enhanced player engagement by **25%** through user-tested feedback, improving gameplay mechanics and features
- 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, OOP and Data Structure
- Conducted tutoring sessions to enhance problem-solving skills, resulting in a **20%** improvement 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