

Gurpreet Singh

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[LinkedIn](#) ▪ [Website](#)

EDUCATION

College of Natural Science and Mathematics, University of Houston, Houston, Texas

Bachelor of Science in Computer Science

Spring 2025

Cumulative GPA: 3.5

WORK EXPERIENCE

NASA Sponsored Undergraduate Student Instrument Project

Spring 2023 – Spring 2025

Software Team Lead & Power Team Member

- Managed a team of 6 software designers to develop payload software using Pi's, Arduino, API Libraries.
- Streamlined team focus by assessing objectives and recording team milestones during weekly team meetings.
- Presented systems and sciences progress to managers and team leads weekly through documented presentations.
- Calculated a 75% boost in power efficiency by undergoing trade study for sustainable solar powered energy source.
- Operated tracking software to locate payload for extraction maintaining 100% retrieval rate of company equipment.

USIP Nationwide Eclipse Ballooning Project

Spring 2023 – Spring 2025

System Debugger

- Created 4 functioning balloon payloads alongside 4 team members by programming software of circuits.
- Modified software of ground station tracking system to locate GPS with a 30% increase to energy efficiency.
- Tested 4 vent flight commands for safe release of payload resulting in a 70% decrease of equipment damage.
- Developed Pterodactyl GPS sensors to achieve 80% accuracy in the display of temperature and wind conditions.
- Debugged camera systems allowing for broadcasting of live video footage and data collection for NASA servers.

PROJECTS

Personal Portfolio Website

Spring 2024

- Developed a responsive personal portfolio utilizing HTML and CSS to showcase projects and experiences.
- Curated visual transitions and transformations design details for an 80% improvement in user responsiveness.
- Facilitated increase in webpage response time by 32% through configured Typescript API to detect user devices.
- Implemented media device detector in JavaScript to have 100% precision in adjusting webpage to various devices.
- Programmed Excel script to communicate between spreadsheet and webpage backend resulting in a 65% increase in user interaction.

CodeRed Odyssey Hackathon

Fall 2022

- Supervised a team of 4 in the development of a consumer-centric web application tailored for e-commerce.
- Engineered interactive e-commerce features leveraging React.js yielding in a 50% boost of user engagement.
- Fostered collaboration with team through utilization of Git, enabling a 40% raise in project and team efficiencies.
- Architected the front-end framework of web application resulting in 70% increase response from back-end API's.
- Designed and presented PowerPoint to showcase web application's ecommerce functionality with 90% accuracy.

HONORS AND AWARDS

Cy-Fair Education Foundation Scholarship: Fall 2022, Spring 2023, Falls 2023, Spring 2024

Dean's List: Fall 2022, Fall 2023

ACTIVITIES

CougarCS Organization

Fall 2022 – Present

- Constructed front-end web applications using HTML and CSS to develop site functionality.
- Advised organization during monthly C++ tutor sessions and bi-monthly test prep courses.

SKILLS

Fluent in English and Punjabi, Conversational in Spanish

Proficient in Visual Studio Code, Visual Studio, GitHub, and CLion

Proficient in Java, C++, and Python, Familiar in HTML, CSS, JavaScript, React, Typescript, Arduino, and Git