

Shelly Wu: AstroVision

When I was just a kid, the night sky has been a fascination for me. At primary school, I sometimes spent hours gazing at the stars before going to bed, thinking about the vastness of the universe. As there is no astronomical courses at my high school, I want to seek knowledge beyond the constellations I could name after I entered college. My ambition is to make the night sky more comprehensible and visible to others who have the same interest as me.

My research project with Dr Krone Martins started fall 2023 when I started to develop AstroVision. AstroVision is a webpage-based platform that aims to offer access to amateur to observe astronomical phenomena. The joy of showing users the universe's outlook after they enter celestial coordinates in AstroVision has been immensely fulfilling. By pursuing this project further, I want to contribute to a community of people like me. At the same time, I want to include machine learning skills into my project. As I want to look for a job and apply for graduate schools at the same time after I finish my undergraduate life, AstroVision stands as a practical endeavor in software development. It prepares me well by deepening my understanding of both software engineering and astronomy.

My major in computer science and my experience in data management and machine learning provide me with a unique perspective on combination of user-friendly website and astronomy. I have already accomplished the initial development of a fully functional prototype that simplifies complex celestial data into accessible visualizations. As I indicate in my research proposal, I will further develop my project in SURP.

AstroVision matters a lot to me since it represents my passion for programming and my interest for astronomy. It helps me realize my dream to reveal the stars to amateur and beginners. It makes the seemingly complicated subject tangible and easy to visualize for them. Every line of code I write, every image I retrieve, and every dataset I integrate helps me realize my dream a little bit. My project is a step toward realizing a vision where the night sky and celestial coordinates are just a click away for anyone despite their understanding in astronomy.