

Ethan Voth

Website: ethanvoth.com | GitHub: github.com/evoth
Monument, Colorado | (719) 394-6704 | ethanvoth1@gmail.com

EDUCATION

University of Central Florida, Burnett Honors College

Expected Graduation: May 1, 2025

Bachelor of Science in Computer Science, 3.97 GPA

Orlando, Florida

- Awarded Benacquisto Scholarship as a National Merit Scholar
- Completed coursework in Data Structures and Algorithms, Object Oriented Software Development, Cybersecurity, Discrete Computational Structures, Programming Languages, Statistics, Calculus I-III Mathematics

TECHNICAL SKILLS

Programming Languages: Python, C, C++, Java, JavaScript/TypeScript

Technologies and Frameworks: Git/GitHub, HTML and CSS, React, React Native, Svelte, Flutter (Dart), Hugo SSG

WORK EXPERIENCE

The MITRE Corporation

October 2023 – December 2023

Software Engineering Internship

Remote

- Investigated the use of generative AI to accelerate implementation of algorithms from technical manuals
- Augmented an existing AI code generation framework to add incremental codebase development capabilities

The MITRE Corporation

May 2023 – July 2023

Software Engineering Internship

Colorado Springs, CO

- Developed Python prototype of a legacy rate track satellite detection algorithm for ground-based telescopes
- Modified the algorithm to include synthetic rate tracking, which provided a 7% detection accuracy improvement
- Presented prototype and findings to inform government decisions on funding for future software upgrades
- Worked with team to discuss improvements, assist with live telescope collect, and develop analysis methodology

Colorado School of Mines

June 2021 – August 2021

Computer Science Internship

Remote

- Learned statistics and optimization concepts necessary for an understanding of machine learning
- Gained insight into the research process by reading and editing technical papers

PERSONAL PROJECTS

Sequent – Camera and Electronics Automation Software

February 2024 – April 2024

C++ (ESP32 microcontroller), Svelte, TypeScript

[GitHub repo](#)

- Includes an intuitive drag-and-drop web editor to create and export sequences of photos and other actions
- Uses ESP32 backend to control cameras via the CCAPI WiFi API and record data from sensors to an SD card
- Provides separate web client to control/monitor sequences and upload new sequences from the web editor

HouseHold – Cross-Platform Household Management App

February 2023 – April 2023

React Native + Amazon Amplify

[GitHub repo](#)

- Created as part of an 8-person Agile team, using Jira to coordinate responsibilities, tasking, and sprints
- Authenticates users with AWS Cognito, supporting login and registration with email verification codes
- Utilizes custom GraphQL queries and subscriptions to update data in real-time across users and devices

Webbster – Astronomical Image Processing Program

August 2022 – November 2022

Python (Astropy, scikit-image)

[GitHub repo](#)

- Aligns multiple FITS images from the NASA JWST using their built-in WCS headers so that they can be layered
- Stretches the contrast of each layer using adaptive histogram equalization to reveal the detail in the raw data
- Colorizes each monochrome layer based on the properties of its NIRCAM filter and blends them into one image