

# WILLIAMSON FRANKOVICH

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## Experience

*NASA GISS STEM Gateways Computer Science & Data Science Intern*

January 2022 – May 2022

- Assisted in developing an inversion algorithm which detects biogenic films on the surface of the ocean by utilizing the polarization of light with a team of researchers using Git
- Used python to take the mean of data from RSP files and transfer them into inversion algorithm
- Worked in collaboration with the GISS Research Scanning Polarimeter group which engages in remote sensing using airborne and spaceborne data collection methods
- Developed multi-purpose algorithm to accept a range of NASA data types and process uniformly into a mono-dimensional array for Fortran processing

*Virginia Tech Undergraduate Machine Learning Research*

August 2021 – December 2021

- Conducted research with CMDA professor into quasi-Newton machine learning methods, specifically, BFGS Optimization and Gradient Descent methods

*Independent Financial Machine Learning Research*

June 2021 – November 2021

- Analyzed commodity and security closing prices using one-shot machine learning on logarithmic regressions using Python, Pandas, and NumPy to recognize trends from publicly available Yahoo Finance data on JupyterLab

*Cherry Blossom Data Animation in Python*

December 2021 – January 2022

- Created an animated gif of crowdsourced cherry blossom data from the trees in Washington D.C. using imageio, python file management libraries, and matplotlib plots

*Upcoming: Sequoia*

April 2022 – June 2022

- Worked on development team focused on a cloud development emulation software to adhere to government policy, classified content, and environmental restrictions
- Top Secret Security Clearance, active Dec, 2021

## Education

*Virginia Tech College of Science*

GPA: 3.56

Bachelor of Science - BS, Computational Modeling and Data Analytics (expected 2024)

Option in Cryptography-Cybersecurity, Minors in Computer Science and Mathematics

## Skills

Python | Java | NumPy | Django | Git | matplotlib | Pandas | R | RStudio | Bash | C | JavaScript