

Nicholas Costello

Maryland/North Carolina

Education

B.S. MATHEMATICS

University of Maryland, College Park, September 2021 — December 2025
Statistics track, with largely applied math and machine learning coursework

M.S. DATA ANALYTICS

University of Maryland, Global Campus, September 2026 — Present

Technical Skills

- Python (10+ years): Pandas, NumPy, Flask, SQLite, scikit-learn, PyTorch
- 3+ years of automating data acquisition, cleaning processes, transformation, and internal tooling
- Other proficiencies: AI/ML, SAS, MATLAB, R, C#, Unity, Unix shell scripting, GitHub, Microsoft Office

Work

JUNE 2026 – PRESENT | CYBER WARFARE OPERATOR | MARYLAND AIR NATIONAL GUARD

- Focused mainly on network exploitation analysis and vulnerability research. Python scripting for data collection, processing, and visualization. (Part-Time)

MARCH 2023 – MAY 2026 | AEROMEDICAL EVACUATION TECH | USAF RESERVES

- Self Assessment Program Manager
- Clinical Management Flight Chief

MAR 2025 – FEB 2026 | DATA ANALYSIS CONTRACTOR | FAMILY TREE DNA

- I used Python/BASH for extraction, transformation, and loading of genetic data in published anthropology research; I also worked on their internal BASH genomics pipeline.

JAN 2021 – JUL 2021 | ADAPTIVE BATTLE STAFF OF THE JOINT SURGEON GENERAL | US NATIONAL GUARD BUREAU

- Data manager responsible for real-time information from 450 individuals across 54 states/territories during NGB Joint Surgeons Office 2021 COVID Operations. Maintained and validated the Medical Common Operating Picture during COVID. Produced weekly reports for the Chief of the NGB, FEMA, HHS, and the White House.

NOV 2018 – FEB 2023 | AEROMEDICAL EVACUATION TECHNICIAN | WV AIR NATIONAL GUARD

- Distinguished graduate of USAF School of Aerospace Medicine's medic and flight medic schools. Planned and executed global patient movement operations, including medical supply logistics, inventory, patient staging considerations, and flight operations.

MAY 2015 – NOV 2018 | CABLE AND ANTENNA TECHNICIAN | USAF

- Installed and maintained network infrastructure in the Space Communications Squadron at Buckley AFB. Also served as the IT Asset Manager for the base, with an inventory of 7500 assets worth \$23M; and as the #1 ranked unit safety representative in the Wing, overseeing 20 work center safety programs including confined space, fall protection, hazmat, radiation, and general workplace safety programs.

Volunteering

VOLUNTEER SKI PATROL | LIBERTY MTN RESORT, PA | APR 2024 – PRESENT

- National Ski Patrol Outdoor Emergency Technician
- Nationally Registered Emergency Medical Technician

Academics

WEBMASTER

- Built and maintained the Evolutionary Anthropology Genetics Lab and Archaeogenetics Lab website for UMD's Anthropology Department
<https://vilarlabs.org/>

POSTERS

- Evan Simmons, Kristina Kalafsky, Karley McIlhatton, **Nick Costello**, Andrew Kim, Wendy Peer (May 2022). *Amino Acid Preferences of Wild-caught Yeast*. UMD Maryland Day, May 2022.
- Sol Lee, **Nick Costello**, Miguel Vilar (May 2022). *Researching Ancient Human History, Migration, and Global Diversity Through the Analysis of Genomic Data*. UMD Undergraduate Research Fair, May 2022.
- Nina J. St. Hillaire, Sol Lee, **Nick Costello**, Miguel Vilar (April 2023). *Phylogenetic Analysis of Mitochondrial DNA Haplogroup X2A and Its Implications for the People of North America*. American Association of Biological Anthropologists 92nd Annual Meeting, April 2023, Reno, NV.
- Sol Lee, Nina J. St. Hillaire, **Nick Costello**, Miguel Vilar (April 2023). *Investigating Prehistoric Migration Into the Japanese Archipelago Using Mitochondrial DNA*. American Association of Biological Anthropologists 92nd Annual Meeting, April 2023, Reno, NV.
- Mia Tomeo, **Nick Costello**, Miguel Vilar (April 2024). *Mitochondrial DNA and the Cultivation of Wheat Reveals Migration Routes from the Levant to Central Europe*. American Association of Biological Anthropologists 93rd Annual Meeting, April 2023, Los Angeles, CA.

TEACHING

- “Introduction to Data Analysis with Python” (ANTH299a) University of Maryland. As an undergraduate, developed and taught a Student-Initiated Course for anthropology and computer science majors. Material taught included IT fundamentals, BASH, Python, regular expressions, and SQLite. Sponsored by Dr Vilar; taught Spring and Fall, 2024

Personal Projects

HOME-LAB

- I have a small home-lab set up on an old desktop mostly just for experimenting, but it also has a few useful services running. It's running Ubuntu Server, with Docker for containerizing my services, and is only (hopefully) accessible through my Tailscale network. In addition to the standard Jellyfin media server, Wazuh SIEM server, personal cloud storage for photos, and data backup for my personal computers, it also has my stock market data tracker. This is a small application I wrote that uses Python and SQLite3 to track daily stock mentions on Reddit as well as the stocks' price point.

GAME DEVELOPMENT

- Since I'm just old enough to remember the glory days of browser-based gaming, I've started writing small video games and hosting them on my own website. The hardest bit of coding so far was, surprisingly, making a leaderboard that receives data securely from the game application.