

Nicholas Gitman

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EDUCATION

Stony Brook University

Bachelor of Science in Computer Science & Applied Mathematics and Statistics

University Scholars Honors Program

Stony Brook, NY

Expected May 2026

Relevant Coursework: Data Structures, Software Development Fundamentals, Probability Theory, Systems Fundamentals I, Probability and Statistics, Computational Geometry, Linear Algebra, Multivariable Calculus

EXPERIENCE

Data Sourcing and Ensemble Generation Researcher

PoliTech – Vertically Integrated Project at Stony Brook University

Stony Brook, NY

Jan 2024 - Present

- Generated ensembles for various states with multi-member districts using Python, Geopandas, and Matplotlib in collaboration with 6 team members.
- Researched and discovered various data sources to update precinct-level election data of several states, modernizing all analyses.
- Enhanced a recombination algorithm to improve visualization in identifying voting trends in several states and its impact on gerrymandering.

Object-Oriented Programming Teaching Assistant

Stony Brook University Department of Computer Science

Stony Brook, NY

Jan 2024 - May 2024

- Led office hours totaling 3 hours a week to advise students regarding the course material, the Java programming language, and/or assignments in a course of 120 total enrolled students.
- Supervised twice-weekly programming lab sections of 30 students and recorded attendance.
- Organized review sessions, summarizing course content to prepare students for exams, improving various students' performances on exams.

PROJECTS

Government Simulator Dashboard | *React, Flask, MongoDB, Auth0, TailwindCSS, MaterialUI*

- Created a full-stack government simulation dashboard web application.
- Integrated Auth0 for user authentication and storage of user data, significantly improving application security.
- Developed a scalable REST API using Flask to interface between the frontend and a MongoDB cloud database, efficiently handling data storage and retrieval operations.

Election Results Visualizer | *React, TailwindCSS, MaterialUI*

- Developed a webpage to automate the visualization of the 2024 Stony Brook University student government election results from a JSON file.
- Led a codebase overhaul from vanilla JavaScript to React, enhancing code maintainability and reducing verbosity.
- Enhanced the mobile UI for smoother rendering and minimized overflow, resulting in a more seamless user experience.

DIABLO (Database-Influenced Automated Ban List of Offenders) | *Python, Discord.py API, MongoDB*

- Deployed a chatbot for Discord intended to stop malicious users from joining chatrooms, preventing 10 potential moderation incidents.
- Maintained a scalable MongoDB database of over 350 user identification numbers of harmful individuals and created an algorithm to search the database whenever a user joins a chatroom.
- Implemented a report handling system embedded into the Discord app which allowed for dozens of reports to be made and processed seamlessly.

SKILLS

Programming Languages: Java, Python, C, HTML, CSS, JavaScript, C#

Frameworks: React, Flask

Tools: Git, MaterialUI, TailwindCSS, MongoDB