# Christopher Geiger

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## EDUCATION

**University of Connecticut** · Storrs, CT

*Major: Computer Science and Engineering, Minor: Mathematics*
*Specialization: Theory and Algorithms*
*McNair Scholar, Honors Student, LSAMP Member*
*GPA: 3.64* · *Aug. 2017 – May 2021*

## RELEVANT EXPERIENCE

**Connecticut National Guard (Senior Design Project)** · Remote
*Cybersecurity* · *August 2020 - May 2021*

- **Cyber Range**: Helped create a new Cyber Range in Connecticut by designing training scenarios for new National Guard recruits. Scenarios (such as ransomware attacks and website defacement) were deployed using VMware.

**Quickwits** · Remote
*Hobby* · *2021*

- **Full Stack Experience**: Developed a modern full stack web application, built with **GraphQL**, **Typescript**, **PostgreSQL**, and **React**, among others. The application is a Quiplash clone, called Quickwits. (Github)

**McNair Scholar Program and Honors Thesis** · Remote
*Iris Recognition and Machine Learning Research* · *June 2020 - May 2021*

- **RESIST**: Co-author of an academic paper which examines the vulnerability of iris recognition devices by using adversarial machine learning networks to produce replica iris images from leaked template data.

**Computational Geometry Design Project** · Remote
*Team Leader and Manager* · *August 2020 - December 2020*

- **Project Management**: Led a team of programmers to develop multiple computational geometry projects over the course of the semester, including a final project on the art gallery problem. The final project was deployed using an **Amazon Lambda** instance. The backend was written in **Python**, and the frontend was written using **P5.js**. (View)

**Plex** · Remote
*Database Engineering* · *May 2019 - Aug. 2019*

- **Tidal Music Streaming Integration**: Created and maintained a new infrastructure for ingesting music data from Tidal streaming service via **FTP**.
- **MongoDB/Mongoose**: Implemented and tracked regular Tidal ingestions via the use of various **Mongoose** schemas, as well as **Redis** key-value stores.
- **NodeJS**: Contributed to a very large-scale **NodeJS** application, which was written entirely in enterprise-grade code, with strict adherence to best practices such as **Rabbitmq** for microservice communication and Modern **ES6** standard practices, enforced by **ESLint**.
- **JSDoc**: Made frequent use of **JSDoc** to provide well-documented and easily maintanable code, as well as to type define new datastructures and functions created, even though this was not yet standard practice at Plex.

**University of Connecticut** · Storrs, CT
*Geoscience Research* · *October 2019 - May 2020*

- **Development of Climate Model Coupler Interface**: Created tools (e.g. **Makefiles**, **bash scripts**) for the NCAR CESM project. The project is specific to the Linux systems on UCAR Cheyenne. (Github)

**Yale Center for Research Computing** · New Haven, CT
*Web Development and Scripting* · *May 2018 - Aug. 2018*

- **Linux Systems**: Designed various scripts which aggregate user data to make predictions about wait times.
- **Backend/Frontend Web Development**: Built web pages for users to visualize usage data (such as disk usage and jobs running under their user group) using **Python**, **Flask**, and **Jinja**. This data was parsed from **SLURM**, and data aggregation was done with **Pandas**.