Christopher Geiger

Student at the University of Connecticut
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Education

University of Connecticut — Storrs, CT
Undergraduate majoring in Computer Science and Engineering, Minor in Math
McNair Scholar, Honors Student, LSAMP Member
GPA: 3.64 — *Aug. 2017 – current*

Relevant Experience

Plex — Remote
Software Developer Intern — *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 some **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.
  - Modern **ES6** standard practices, enforced by **ESLint**.
  - Frequent **Git** and **Github** for version control, including managing multiple branches, submitting pull requests, new issues, and doing code reviews in relevant areas. Since Plex is completely remote, adept Git usage was necessary for the job.
- **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.

Yale Center for Research Computing — New Haven, CT
Research Computing Intern — *May 2018 - Aug. 2018*

- **Linux Systems**: Connected to **RHEL** nodes on the cluster via **SSH** on the **Bash** command line. Wrote various **Python** scripts to aggregate data regarding user 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**, with front end work in **JavaScript**. Interfaced with **SLURM** in doing so, and performed data aggregation with **Pandas**.

University of Connecticut High Performance Computing — Storrs, CT
Student Worker in High Performance Computing — *October 2018 - May 2019*

- **Linux Systems**: Helped to manage, support, and monitor **HPC** systems.
- **Support**: Strove to give clear and concise answers to tickets raised by professors and graduate students, after troubleshooting numerous issues regarding our **module** builds of various specific scientific software. Wrote documentation regarding the cluster using **mkdocs**, and began to transfer old documentation from **MediaWiki** to a new **mkdocs** site.

University of Connecticut Research Assistant — Storrs, CT
Research Assistant — *October 2019 - Current*

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

McNair Scholar Program — Remote
Undergraduate Researcher — *June 2020 - July 2020*

- **Iris Recognition**: Contributed to the development of a machine learning/cybersecurity project which examines the vulnerabilities of iris recognition systems.

Connecticut National Guard (Senior Design Project) — Remote
Student Worker — *August 2020 - Current*

- **Cyber Range**: Currently designing mock cyberattack scenarios for National Guard training purposes.

Additional Technical Skills

* **Fluent in Spanish**
* I am also adept with: **Python, Latex, Ubuntu/Manjaro/Arch Linux, Vim**
* I am also familiar with: Jester, yarn, npm, Scheme (Lisp), building software from source

Relevant Coursework

* Systems Programming
* Operating Systems
* Advanced Algorithms
* Computational Geometry
* Intro to Object Oriented Programming
* Introduction to Complex Variables
* Algorithms and Complexity
* Introduction to Discrete Systems

Other Achievements and Details

- **McNair Scholar Program**: Selected as one of around 30 students to be a McNair Scholar at the University of Connecticut in 2020.
- **Super Monkey Challenge IV, Programming Competition**: Won 4th place in a programming competition against 40 Computer Science students attending universities around Puerto Rico in May 2018. (Click here to see some problems I solved.)
- **STEM Scholar**: Selected as a STEM scholar, and scholarship award recipient in August 2017.
- **University of Connecticut Honors Program**: Selected to be one of the 521 incoming freshmen entering the University of Connecticut honors program in August 2017.