NICHOLAS HARRAS

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SKILLS

- **Programming and Scripting:** Python, C, Java, Perl, JavaScript, PHP, bash, tcsh
- **Databases and Web Dev:** SQLite, MySQL, InfluxDB, Grafana, WordPress, AWS (RDS and EC2)
- **IT and Workflow Tools:** Service Desk, OTRS, Slurm, git, vim, cron
- **Network and Security:** Nmap, Nessus, WireShark, Burp Suite, VirtualBox, OpenVPN, iptables, ssh, X2Go
- **Operating Systems:** Ubuntu 18.04, RHEL 7, OpenSUSE, Windows 10
- **Clearance:** Public Trust

EXPERIENCE

National Oceanic and Atmospheric Administration   Princeton, NJ
Computer Operator   *June 2019 - February 2020*

- Utilized **Slurm** and other command line tools to maintain various Federal **OpenSUSE Linux** HPC systems that scientists at NOAA's Geophysical Fluid Dynamics Lab rely on for their weather modeling
- Responded to or properly handed off around 10 tickets a day within **OTRS**, in a workplace of a around 200 users.
- Answered phones and assisted climatologists and engineers with technical issues, often with **SSH** and **X2Go** connections, **Slurm** errors, and compiler issues
- Developed **Python** and **tcsh** scripts to automate various maintenance tasks

SEMGeeks   Belmar, NJ
Web Development Intern   *September - December 2017*

- Worked closely with web developers and designers to help create websites for small businesses
- Utilized **WordPress** and its various tools for content management across 12 or so projects

PROJECTS

Operators' Log Migration (in progress)

Long term project with the goal of moving 30 years of Operators' log from text files to a relational database, utilizing **Python**, **SQLite**, and **MySQL**

- Developed software to autonomously navigate a section of a filesystem.
- Utilized input sanitation, capable to parsing a wide variety of logging styles over the course of the last 30 years
- Ran a large amount of tests and proofs-of-concepts, stress-tested and quality controlled utilizing **SQLite** database files, as to not overburden our systems before migration is to take place.

HPC Monitoring Dashboard

Grafana metrics dashboard for various statistics pertinent to monitoring GFDL/NOAA HPCs, utilizing an **InfluxDB** database and **Python**

- Developed **Python** wrappers of **Slurm** and system functions to constantly update an **InfluxDB** database
- Wrote software as part of a small team, prioritizing portability and readability

EDUCATION

Rutgers University   New Brunswick, NJ
B.S. in Computer Science   *September 2014 - August 2018*

- **Related Coursework:** Linear Optimization, Computer Security, Databases, Internet Technology, Systems Programming, Algorithms, Principles of Programming Languages, Intro to A.I., Computer Architecture, Discrete Structures I/II, Linear Algebra, Calculus I/II, Data Structures