Jacob A Cohen

Computer Scientist | Baltimore, MD

jacobacohen@outlook.com | https://jcohen.dev/ | /in/jacobac | /jacobacohen | (443) 903-0331

Languages

Python
Java
C
Bash/Zsh
SQL
Ruby
OCaml
Racket

Tools

Git
Containers (Docker/Singularity)
Kubernetes
Anaconda
MPI
Osquery
Ghidra
Vim
Wireshark
Elastic Stack
ArcGIS

Libraries

Flask
Django
Pandas
NumPy
Transformers (NLP)
Tensorflow
BeautifulSoup

Certifications

Cisco CCENT
CompTIA A+

Secret Clearance Held

Work Experience

Computer Scientist — **August 2020 – Present**
Army Research Laboratory – DoD Supercomputing Resource Center — Aberdeen, Maryland

Led, informed, and mobilized various Department of Defense (DoD) customer projects towards leveraging of High Performance Computing (HPC) resources. Efforts involved use of technologies such as containerization and various Python libraries (transformers, pandas, pysc2), consistent documentation, leadership throughout project meetings, and dealt with the domains of ML, NLP, and networking. Other assignments involved development into a multi-threaded C (MPI) file transfer application and feature development for a Python Django run virtualization interface.

High Performance Computing Intern (HIP) — **Summer 2016 - Summer 2019**
Army Research Laboratory – DoD Supercomputing Resource Center — Aberdeen, Maryland

Defined, implemented, and developed an Extract, Transform, Load (ETL) data collection framework for use on HPC systems at scale thru stand-up of the Elastic Stack, MySQL, and Osquery. Created solutions provide tracking of research application licenses and system/node resource usage data.

Education

B.S. in Computer Science — **August 2016 - May 2020**
University of Maryland - College Park — College Park, Maryland
Minors: Advanced Cybersecurity Experience for Students & Geographic Information Science
Honors College & Scholars (Science, Technology, Society) Programs
GPA: 3.589

Projects/Programming

• Domain Name Service (DNS) Prefetching Research Project — 2019

Collaborated on techniques for web scraping the Alexa top 10,000 websites via the BeautifulSoup Python library to get usage statistics on implementation of DNS Prefetching.

• "Leveraging Comprehensive Data Analysis to Inform Parallel HPC Workloads."
In *2019 IEEE International Conference on Big Data* (pp. 3960-3967). — 2019

• "Application of Comprehensive Data Analysis for Interactive, Hierarchical Views of HPC Workloads"
In *2018 IEEE International Conference on Big Data (Big Data)* (pp. 3585-3589). — 2018

Volunteering/Awards

• Thread Baltimore Volunteer — 2021-Present
• UMD Dean's List for Computer Science — 2016-2020
• Coordinator/Volunteer - Terps 4 Change at A Wider Circle and TerpFarm — 2019-2020
• DoD SMART Scholarship Awardee — Fall 2018–2020
• Armed Forces Communications & Electronics Association Scholarship — 2016–2020