Landon T Clipp

skills

System administration
Systems engineering
HPC
Parallel programming
Software development
Data archive systems
Big data management

links

landontclipp.github.io
linkedin.com/in/landonclipp

programming languages

Golang • Python • C • C++
Bash • x86 • SystemVerilog

technologies

SaltStack • Ansible • GPFS
Systemd • SLURM • SGE
VAST Data • Git • MPI
Linux • Docker • AWS •
SQL

honors & awards

Parkland College — **2014-2016**
Dean's List

Parkland College — **2016**
Certificate of Achievement

State of Illinois — **2015**
House of Representatives Scholar Award

Boy Scouts of America — **2014**
Eagle Scout Award

interests

Aviation
Astronomy
Physics
Amateur radio
Fitness
Piano

experience

2018 — Present

Jump Trading Chicago, Illinois USA
Production Engineer

- Member of the **High Performance Computing** team.
- Build and administer Jump's HPC clusters used for strategy research. Create solutions for scalability issues encountered with large computing systems.
- Design and build automation systems for deploying software on the grid.
- Partake in on-call rotation. Monitor all Linux hosts in both grid and production trading environments throughout the world. Analyze and diagnose production problems to provide operational support for all trading teams in all environments.
- Simultaneous member of the **Market Data Archive** team. Create sophisticated multi-stage pipelines for ingesting market data from colocations, syncing to HPC storage systems, cleaning the data, verifying integrity, deduplicating, and backing up to off-prem cold storage.
- Design and implement global content distribution network for market data.

2016 — 2018

National Center for Supercomputing Applications Urbana, Illinois USA
Student Research Programmer

- Designed and built a massively parallel MPI application on the **Blue Waters Supercomputer** for climate research.
- Worked with climate scientists to generate and maintain 3 petabytes of a new fused weather data product called Basic Fusion (BF).
- Development of custom workflow software. Written in Python to interface with the TORQUE batch scheduler, the Nearline tape archive system, and high-performance scratch storage. Dynamic load balancing paradigm.
- Development of the Basic Fusion C program. Usage of both HDF4 and HDF5 APIs.
- Port of BF program to **Amazon AWS**. Implemented cloud-native processing framework using AWS Batch. Created cost model and optimized compute environment for efficient processing.

2017 — 2018

University of Illinois Student Cluster Team Urbana, Illinois USA
Team Lead

- Participated in the **ACM/IEEE Supercomputing Conference Student Cluster Competition** (SCC) in Denver, Colorado (2017) and Dallas, Texas (2018).
- Team won 3rd overall in 2018, 1st out of all American teams.
- Designed, built, and maintained a multi-node computing cluster to compete in benchmarking competition.

education

2016 — 2018

Bachelor of Eng. in Computer Engineering — University of Illinois Urbana - Champaign

2014 — 2016

Associates in Engineering Science with Honors — Parkland College, Champaign Illinois

projects

2020 — Present

github.com/vektra/mockery
A Golang mock generator that parses source code and automatically creates mock objects for unit testing. One of the two community standards for mock generation. Took over maintainership responsibilities and have implemented major improvements to the code in version 2. Collaborated with community members to make robust CI/CD pipeline on TravisCI.

2020 — Present

github.com/chigopher/pathlib
A Golang library that uses a file system abstraction layer to create Golang's first bonafide object-oriented path manipulation library. Heavy inspiration taken from Python's pathlib.

2017

Unix-like Kernel Development
Collaborated with a team to design and write and implementation of a Unix-like operating system kernel. Implemented key components of operating system such as low-level device drivers, interrupt handlers, paging structures, system calls, and multiprocessing.