DAVID HUGH HARRIS III

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EDUCATION

UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN   Class of 2018
BACHELOR OF SCIENCE IN COMPUTER SCIENCE AND MATHEMATICS
MINOR IN BUSINESS

EXPERIENCE

META PLATFORMS, INC.   Menlo Park, CA
Production Engineer, Data Security Systems   June 2018 - present
- Improved scalability of service responsible for mutating access-control-lists by reducing server memory util by 66% and enabling the service to grow independently from the number of ACLs in the database
- Optimized critical Hive/Presto data pipelines responsible for populating ACL audit data using a divide and conquer approach that resulted in the pipelines runtime decreasing from 12+ hours to less than 30 minutes
- Created a server-side request logging framework, allowing us to track client-behavior and perf bottlenecks
- Created A/B testing framework that runs before every commit in order to catch performance regressions
- Created general purpose admission control library inside Thrift server that prevents service overloading due to misbehaving clients. Custom tuning based on client headers can handle over 100k QPS per instance
- Established SLOs for ten services, implementing and re-augmenting alarms for their associated thresholds
- Automated renewals of 30,000 public certificates and reduced lifetimes to improve security posture
- Conducted over 75 systems interviews and presented at universities to aid Facebook's recruiting efforts
- Led incident post-mortem sessions for the entire Data Security org and drove critical follow-ups
- Collaborated with several XFN partner teams to plan roadmaps focused on reliability and scalability features

Production Engineer Intern   May 2017 - August 2017
- Wrote a sophisticated CLI tool using the latest features of Python 3 and a highly extensible modular design
- 100% unit test coverage and consistently maintained a "exceptionally high" quality of work
- Implemented a logging functionality that writes to two different kinds of databases with an elegant GUI
- Produced over 10,000 lines of production code–"more output than any other intern" on my team.

THOMAS ENGINEERING, INC.   Hoffman Estates, IL
Automation Engineer Intern   May 2016 - August 2016
- Documented and reviewed Microsoft SQL Server and applied patches to fix security vulnerabilities
- Built features that amounted to a 150% speedup when fetching data from the database
- Collaborated with other engineers and created a visualization of the database

COMPUTER SCIENCE BACKGROUND

HACKATHONS
- Hack Illinois 2017 Finalist – "Rust Cookbook" – https://github.com/rust-lang-nursery/rust-cookbook
    - Featured on the official Rust-Lang blog and commended as one of the largest achievements of 2017
    - Open source GitHub repository has over 600 commits and 100 contributors as of January 2021

PROGRAMMING LANGUAGES / TOOLS
- Intermediate proficiency in PHP (Hack), Rust, Java and Ruby (Chef)
- Advanced proficiency in Python 3 with experience using modern mock/unit testing frameworks and async-io
- Advanced proficiency in modern C++ with five years of experience writing high-quality, well-tested production code. Working Knowledge of open source libraries such as Boost, Folly and GTest/GMock
- 5+ years experience managing Linux servers in a production environment incl. services with 100s of instances
- Experience managing Hive/Presto and MySQL databases with millions of rows and high availability rates