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

FACEBOOK, INC.

Menlo Park, CA

Production Engineer, Data Security Systems

June 2018 - present

- Facilitated reliability review for five core security services, which identified many areas of improvement
- 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
- Developed a admission control library which prevents service overloading caused by misbehaving clients
- Established SLOs for ten services, implementing and re-augmenting alarms for their associated thresholds
- Revamped dashboards so that they can be used by the on-call to decrease "MTTC: mean-time-to-clue"
- Automated renewals of 30,000 public certificates and reduced lifetimes to improve security posture
- Conducted over 60 systems interviews and presented at universities to aid Facebook's recruiting efforts
- Evaluated roadmaps for a team of 11 software engineers, directing focus to scalability and reliability

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
 - o Recipient of the "Staff's Pick" and "Long Con" awards for our long term contributions to the project
 - o Featured on the official Rust-Lang blog and commended as one of the largest achievements of 2017
 - o Open source GitHub repository has over 600 commits and 100 contributors as of January 2021

PROGRAMMING LANGUAGES

- Intermediate proficiency in PHP (Hack), Rust, Java and Assembly
- 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 libraries such as Boost, Folly and Google Test/Mock/Log
- Over five years of experience managing UNIX/Linux servers in a production environment

SOFTWARE PROJECTS

- Flight Simulator written in OpenGL using object oriented graphics programming techniques
- Numerous other projects for class, such as implementing a shell, malloc and make in C