

Raphael Long

rafilong.com - github.com/rafilong - rafilong42@gmail.com - (650) 630-9731

EDUCATION

University of Illinois at Urbana Champaign

B.S. in Computer Science

May 2021

4.00/4.00 GPA

Relevant Coursework

Algorithms & Models of Computation, Artificial Intelligence, Machine Learning, System Programming, Computer Architecture, Computer Security, Distributed Systems, Data Structures

EXPERIENCE

Google

Software Engineering Intern

Remote Work

May 2020 - Aug. 2020

- Added async support to Firestore Python client library (downloaded 800,000+ times a month)
- Async version of Firestore client is 14.3x faster than naive use of sync client and is 1.96x faster than threaded usage of sync client
- Refactored Bigtable Python client in preparation for async

CS 473 Algorithms

Course Assistant

Champaign, IL

May 2020 - Aug. 2020

- Graded over 50 homework submissions biweekly for advanced algorithms class
- Answered questions on online discussion board

Facebook

Software Engineering Intern

Menlo Park, CA

May 2019 - Aug. 2019

- Developed feature for streaming service in C++, led to 80% decrease in memory usage
- Created CLI tool to check output of routing service, using Python, C++, and Thrift
- Created testing framework to verify correctness of routing service

CS 241 System Programming

Course Assistant

Champaign, IL

Jan. 2019 - Present

- Hosted office hours and answered questions on online message board
- Contributed to assignment development team, worked on creating new assignment
- Taught review lectures on memory and storage

CS 126 Software Design Studio

Course Assistant

Champaign, IL

Sept. 2018 - Dec. 2018

- Hosted office hours and code reviews, taught design principles and test driven development
- Mentored students on industry best practices, including code style and version control

Capital One

Software Engineering Intern

Champaign, IL

Jan. 2018 - May 2018

- Restructured SQL database for faster queries, decreasing queries on home page by 88%

PUBLICATIONS

P. M. Long and R. J. Long. On the complexity of proper distribution-free learning of linear classifiers. ALT'20.

EXTRACURRICULARS

Mini Jam 54 1st Place (out of 96)

May 2020

Mechmania 2nd Place (out of 17)

Sept. 2019

Google Tech Challenge 2nd Place (out of 37)

April 2019

MechMania 2nd Place (out of 37)

Sept. 2018

SKILLS

Proficient in C++, C, Java, Python (asyncio, numpy, pandas), Go, Git, UNIX, Thrift, Javascript, HTML and CSS
Experienced with MatLab, SQL, MongoDB and Lua