Jakob Cornell

SKILLS

computer languages	Python, Java, C, C++, Rust, SQL, JavaScript, assembly
libraries & frameworks	Abseil, async/await, Django, Requests, Beautiful Soup
tools	Unix shell, Git, Mercurial, Eclipse, GDB-like debuggers
protocols & formats	HTML, XML, HTTP, PDF
human languages	English, German (working proficiency), Mandarin (elementary)

EXPERIENCE

Google Madison, WI

software engineer . . . . .July 2022 – present

Working in virtual networking for Google Cloud Platform. My team is one of several responsible for software enabling the offload of packet processing for customer traffic to dedicated hardware (Intel's IPU, a smart NIC). For the most part I work with C++ code in this role.

UtilityAPI Oakland, CA (remote)

software engineer . . . . .September 2019 – June 2022

Backend engineer working with Python and Django, with some involvement in frontend and platform projects. Also involved in user interface design, API design, and discussions of high level software architecture for our products. Responsible for starting a shift in platform from Selenium to a more reliable framework and for significantly expanding internal engineering documentation. Screened candidates for engineering positions, helped introduce new team members to our code base, and reviewed code changes for correctness and style.

EDUCATION

Oberlin College August 2015 – May 2019

B.A. in computer science, mathematics (minor), physics (minor)

member, Phi Beta Kappa

HONORS

- R. J. Thomas award: outstanding computer science student (Oberlin College, 2019)
- *First place*, Ohio Wesleyan University Programming Contest (2019)
- *First place*, Denison Programming Contest (Spring 2018)
- *First place*, Information Security Summit Collegiate Capture the Flag Competition (2016)
- Within top 6% of contestants on LeetCode

SAMPLE PROJECTS

- Free software Android puzzle game adapted for educational use by adding NFC-based identification and database integration.
- FUSE filesystem to download and decrypt raw torrent data from cloud storage and mount it as a directory tree by parsing the torrent metadata (written in Python).
- Custom torrent client plugin that maintains a cache on disk to allow efficient seeding of remote files from cloud storage (written in Rust).
- Python program to batch download and track changes of files on Blackboard Learn using web crawling.

PUBLICATIONS

- John H. Scofield and Jakob Cornell, "A critical look at 'Energy savings, emissions reductions, and health co-benefits of the green building movement,'" Journal of Exposure Science and Environmental Epidemiology, October 3, 2018.