

Jeffrey A. Booher-Kaeding

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kaeding.io

Education:

Sonoma State University, Rohnert Park, CA
Bachelor of Science, Computer Science GPA 3.1

Graduated: Dec 2018
Awarded Departmental Distinction

Employment:

Arm Inc.

San Jose, CA

Intern, Engineering

January 2019 - May 2019

Conducted research to allow hardware energy sensors on ARM processors to be mimicked in software, allowing usage on systems where a hardware implementation is not present. This involved complex data analysis via Python/Pandas, as well as understanding the hardware and processor characteristics. Researched In/out of bound management interfaces, use cases, and their limitations.

Lawrence Livermore National Laboratory

Livermore, CA

Computation Student Intern under Dr. Barry Rountree

May 2018 - December 2019

Researched power capping algorithms for high performance computing applications on up and coming architectures. Developed Python simulator to prototype algorithms and wrote implementations in C.

Sonoma State University

Rohnert Park, CA

Assistant System Administrator

August 2017 - May 2018

Installed and configured software stacks for educational environments, such as Keras with a GPU Tensorflow backend. Configured and managed lab machines and departmental servers.

Technologies and languages

Programming Languages: Python(Proficient), C/C++(Proficient), Golang(Familiar), Java(Familiar), Bash

Tools/Technologies: Unix/Linux, Vim, GDB/LLDB, Git, QEMU, OpenMP, power control, OOBM

Projects:

- Developing computational photography program utilizing Golang, Tensorflow, & OpenCV, to enhance the depth of field of an image (2019)
- Designed and implemented a Intel RAPL-inspired power control algorithm on ARM architecture, maximizing performance while adhering strictly below a user defined powercap (2018)
- Studied and characterized the performance of OpenMP scheduling directives on ARM heterogeneous processors (\$1,000 research grant) (2018)
- Built personal website utilizing Apache, Flask, CSS and Javascript (2017)
- Developed a biometric bike lock prototype utilizing Arduino and third party hardware & libraries to take 2nd place at the North Bay Make-A-Thon (2016)