Joseph Bisch

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EDUCATION

BS, Computer Engineering, *University of New Haven*, West Haven, CT   Sept. 2011–Dec. 2016

Minor: Electrical Engineering
GPA: 3.310 overall, 3.550 major

EXPERIENCE

HPE Linux Virtualization Intern, *Hewlett Packard Enterprise*, Fort Collins, CO   May 2016–Present

Work as a member of the HPE Linux Virtualization Team. HPE Linux is HPE's Debian derivative Linux distro .
- Fuzzing System Calls Related to Namespaced Resources Project
    - Fuzz Linux kernel system calls related to namespaced resources
    - Fix bugs found by fuzzing process to improve Linux containers (LXC), which is based on namespaces
- HPE Linux Dashboard Project
    - Create an HPE Linux dashboard (web app) for tracking differences between source packages in Debian and HPE Linux
    - Can be used to identify updates that need to be pulled into HPE Linux from Debian, or places where the delta between Debian and HPE Linux can be reduced to increase the ease of maintaining HPE Linux.
- Work full-time onsite into August and then work part-time remotely as I finish my degree

Intern, *Armory Technologies Inc*, Fulton, MD   Mar. 2015–Oct. 2015

- Adapt the Bitcoin Core dependency builder system to Armory
- Create Gitian descriptors and take steps to get Armory building reproducibly
- Use the Debian Reproducible Toolchain to create reproducible deb packages of Armory
- Develop and implement a plan for signing and verifying the reproducible builds
- Migrate build system to Autotools
- Interact with people located throughout the world
- Use Git and GitHub to accomplish the above
- Design Android app that does a secure key exchange with another device and can create challenge-based message authentication codes

Google Summer of Code Student, *Debian*, www.debian.org   Apr. 2014–Aug. 2014

Design and implement a Debian Metrics Portal to view, add, and maintain metrics in a uniform way. Uses Python server-side and HTML, CSS, JavaScript client-side. Uses SQLAlchemy, flot.js, matplotlib, flask.
- Database structure to store all historical data points of all metrics
- Standardized declarative interface to add/remove metrics to be graphed
- Cron jobs to periodically fetch new data and generate graphs
- Integration of some of the existing graphs in the metrics infrastructure
- Web interface to show updated graphs of the various metrics
- Client-side dynamic web interface to graph, on demand, specific metrics over the desired time periods

LEADERSHIP ACTIVITIES

Secretary & Comp. Eng. Lead, *Institute of Electrical and Electronic Engineers*, Univ. of New Haven   2015–2016
Vice President, *Institute of Electrical and Electronics Engineers*, University of New Haven   2013–2014
Vice President, *Eta Kappa Nu*, University of New Haven   2013–Present

SKILLS

Languages	Shell Scripting, Python, Java, C, C++, HTML, CSS, JavaScript, Visual Basic for Appications (VBA)
Software	LabVIEW, Microsoft Office, Apache httpd Server, MySQL, Postgres, Various IDEs (including Eclipse and Xcode)
OSes	Linux, Mac OS X, Microsoft Windows, Android, iOS
Other	Embedded Systems, Website Development, Debian Packaging, Various Data Interchange Formats