Robert J. Hickok

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Education

Bachelor of Science, Computer Science, *University of Illinois at Chicago,* **GPA***: 3.95*   Sept. 2016 - Dec. 2018

Associate of Science, Computer Science, *College of DuPage,* **GPA***: 3.29*   Sept. 2013 - May 2016

Skills

Software & Computer Systems - C, C++, Python, x86, Bash, Networking (L3/L4), Embedded Systems, Applications

Tools & OS - Linux, Yocto, AWS EC2, Git, GDB, CMake, Make, GCC/G++, Perf, Valgrind, WireShark, TCPDump, Data Plane Developmet Kit (DPDK)

Professional Experience

Software Engineer, *Trend Micro,* Austin, TX.   Jan. 2019 - Present

- Architected, developed, and maintained high performance multi-threaded C/C++ software and PCI Express drivers for fpga verification which streamlined chip deployment and integration for all R&D teams
- Pioneered a custom CMake and CentOS process which accelerated software development cycles by exposing TippingPoint source code in an industry standard, sand boxed, format which became adopted and maintained by several R&D teams
- Developed a software testing scheme for proprietary fpga chips which enabled R&D teams to perform cost-benefit analysis helping drive and determine the effectiveness of the chip and ultimately the purchase and integration of said chips
- Created and implemented a cost saving scaling method for AWS EC2 TippingPoint testing devices reducing hourly costs from $0.308 to $0.0376 which unlocked Q&A teams to use 10x the number of systems for testing
- Integrated with a number of R&D teams - following their processes - to implement software tools written in C/C++ for fpga debug and development which created team autonomy and produced a non-blocking development environment
- Delegated outstanding software tasks to interns and mentored them on solutions helping their professional development and production of concrete deliverables for a variety of R&D teams

Software Engineering Co-Op, *Argonne National Laboratory,* Darien, IL.   May 2017 - May 2018

- Collaborated with a team of five to create and deploy Java service components which helped improve several lab operations
- Created SQL queries for re-usable reports that clients used on a day-to-day to make data driven decisions
- Lead research group for modernization of frameworks resulting in adoption and creation of new standards and tools

Computational Biophysics Intern, *Illinois Institute of Technology,* Chicago, IL.   Jun. 2016 - Aug. 2016

- Created Python programs to process simulation metadata enabling analysis and assessment of experiments
- Developed Bash scripts to extract and process data from simulations allowing for abstraction and automation of workflow
- Produced supercomputer usage proposal that helped reduce project costs by thousands

Web Administrator, *Evolution Artisan Confections,* Valparaiso, IN.   Jul. 2014 - Sept. 2014

- Managed WordPress website and plugins which assisted business to grow from a startup to well-established local brand
- Provided custom plugin and tooling support using PHP, JavaScript, and MySQL adding unique and engaging functionality
- Implemented WordPress theme with custom modifications that established and maintained brand image

Sales Experience

Sales Associate, *Eddie Bauer,* Lombard, IL.   Oct. 2015 - Jan. 2018

- Kept store organized by following Eddie Bauer design guidelines which helped company and store brand image
- Maintained strong sales performance each quarter by having a UPT > 2.0 and SPH > 100.0
- Provided excellent customer service that created and improved client relations

Projects

UT Inventors Program [https://inventors.cns.utexas.edu/projects] - Professional   Jan. 2020 - Present

- Mentored teams of 5-10 students every semester on cybersecurity projects
- Co-lead winning inventors showcase team, 2020
- Appointed sponsor liaison for TrendMicro

Resty Router [www.github.com/arrjayh/lua-resty-route] - Personal (Lua)   May 2018 - Aug. 2018

- Redesigned and improved existing WebSocket handler helping other developers to create scalable web services
- Improved forked code clarity by introducing better variable names and methods objectively increasing readability
- Added middleware to easily handle Redis and PostgreSQL connections extending framework beyond routing

Google Street View [closed source per UIC academic policy] - Academic (Python + C++)   Jan. 2018 - May 2018

- Designed and created 360 degree panorama camera using Arduinos
- Built custom SPI monitor using Python which effectively delegated Arduino communication
- Implemented custom software to stitch panorama photos that produced final 360 degree image