

# Robert J. Hickok

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San Francisco, CA - USA

(737) 465 - 9750

## 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), Applications

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

## Professional Experience

**Software Engineer**, *Twitch*, San Francisco, CA.

Jul 2021 - Present

- Working with Emerging Platforms to create the next generation of Twitch - Living Room using React, NextJS, and native platform tooling

**Software Engineer**, *Trend Micro*, Austin, TX.

Jan 2019 - Jun 2021

- Architected, developed, and maintained high performance multi-threaded C/C++ software and PCIe 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 - Jun 2021

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

**Resty Router** [[www.github.com/arrjayh/lua-resty-route](https://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