

# Robert J. Hickok

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## Education

<b>Bachelor of Science, Computer Science</b> , University of Illinois at Chicago, <b>GPA: 3.95</b>	Sept. 2016 - Dec. 2018
<b>Associate of Science, Computer Science</b> , College of DuPage, <b>GPA: 3.29</b>	Sept. 2013 - May 2016

## Skills

**Software & Computer Systems** - C, C++, Python, Bash, TypeScript  
**Tools** - Git, GDB, CMake, GCC/G++, Perf, Valgrind, WireShark, TCPDump, DPDK, React

## About

Mid-level systems software engineer. Seeking opportunities which require some domain expertise in systems or platform software engineering. Have had a breadth of experiences; from physics research, web, embedded, and distributed computing. My most recent work revolves around app enablement for a variety of platforms (Xbox, PS4, PS5, Switch) for an online streaming service.

## Professional Experience

<b>Software Engineer</b> , Twitch, San Francisco, CA.	Jul 2021 - Jun 2022
<ul style="list-style-type: none"><li>Worked alongside front-end developers to help create the next generation of Twitch - Living Room using React, NextJS, and native platform tooling.</li><li>Created a DNS solution for local platform development which improved developer velocity by 900x.</li><li>Designed and implemented an Xbox One virtual keyboard IPC scheme to delegate native inputs from the platform to a NextJS app.</li><li>Delivered a cross-platform build initiative which greatly improved PS4/PS5 development experience.</li></ul>	

<b>Software Engineer</b> , Trend Micro, Austin, TX.	Jan 2019 - Jun 2021
<ul style="list-style-type: none"><li>Architected, developed, and maintained high performance multi-threaded software written in C which assisted in streamlining FPGA chip integration and deployment for consuming R&amp;D teams.</li><li>Pioneered a CMake/CentOS build system which improved software development time by exposing TippingPoint source code in an industry standard format which became adopted and maintained by several R&amp;D teams.</li><li>Architected and Developed software testing schemes for proprietary FPGA chips enabling R&amp;D teams to perform cost-benefit analysis which helped determine the effectiveness of the chip and ultimately the purchase and integration of said chips.</li><li>Created and implemented a cost saving scaling method for AWS EC2 TippingPoint testing devices reducing hourly costs from \$0.308 to \$0.0376 unlocking Q&amp;A teams to use 10x the number of systems for testing.</li><li>Worked alongside a variety of R&amp;D teams leveraging their processes to implement software written in C/C++/Python for FPGA debug and development which created a high degree team autonomy.</li></ul>	

<b>Software Engineering Intern</b> , Argonne National Laboratory, Darien, IL.	May 2017 - May 2018
<ul style="list-style-type: none"><li>Collaborated with a team of five to create and deploy Java service components which helped improve several lab operations.</li><li>Created SQL queries for re-usable reports that clients used on a day-to-day basis to make data driven decisions.</li><li>Lead research group for modernization of frameworks resulting in adoption and creation of new standards and tools.</li></ul>	

<b>Computational Biophysics Intern</b> , Illinois Institute of Technology, Chicago, IL.	Jun 2016 - Aug 2016
<ul style="list-style-type: none"><li>Created Python programs to process simulation metadata enabling analysis and assessment of experiments.</li><li>Developed Bash scripts to extract and process data from simulations allowing for abstraction and automation of workflow.</li><li>Produced a supercomputer usage proposal that helped reduce project costs by thousands.</li></ul>	

<b>Web Administrator</b> , Evolution Artisan Confections, Valparaiso, IN.	Jul. 2014 - Sept. 2014
<ul style="list-style-type: none"><li>Managed WordPress website and plugins which assisted business to grow from a startup to well-established local brand.</li><li>Provided custom plugin and tooling support using PHP, JavaScript, and MySQL adding unique and engaging functionality.</li><li>Implemented WordPress theme with custom modifications that established and maintained brand image.</li></ul>	

## Sales Experience

<b>Sales Associate</b> , Eddie Bauer, Lombard, IL.	Oct. 2015 - Jan. 2018
<ul style="list-style-type: none"><li>Kept the store organized by following Eddie Bauer design guidelines which helped the company and store brand image.</li><li>Maintained strong sales performance each quarter by having a UPT &gt; 2.0 and SPH &gt; 100.0.</li><li>Provided excellent customer service that created and improved client relations.</li></ul>	

## Projects

<b>UT Inventors Program</b> [ <a href="https://inventors.cns.utexas.edu/projects">https://inventors.cns.utexas.edu/projects</a> ] - Professional	Jan 2020 - Jun 2021
<ul style="list-style-type: none"><li>Mentored teams of 5-10 on cybersecurity projects.</li><li>Co-lead winning inventors showcase team, 2020.</li><li>Appointed sponsor liaison for Trend Micro.</li></ul>	
<b>Resty Router</b> [ <a href="https://github.com/arrjayh/lua-resty-route">www.github.com/arrjayh/lua-resty-route</a> ] - Personal (Lua)	May 2018 - Aug 2018
<ul style="list-style-type: none"><li>Redesigned and improved existing WebSocket handler helping other developers to create scalable web services.</li><li>Improved forked code clarity by introducing better variable names and methods objectively increasing readability.</li><li>Added middleware to easily handle Redis and PostgreSQL connections extending the framework beyond routing.</li></ul>	