Robert J. Hickok

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Education

Bachelor of Science, Computer Science, *University of Illinois at Chicago,* **GPA***: 3.52*   **Expected: December 2018**

Associate of Science, Computer Science, *College of DuPage,* **GPA***: 3.3*   Sept. 2013 - May 2016

Skills

Software & Computer Systems - C, C++, Python, Java, JavaScript, SQL, Lua, x86, MIPS, Bash, HTML, CSS

Frameworks - Flask, SpringMVC, WordPress, Bootstrap, AngularJS, ReactJS, ExtJS

Tools - Windows, Linux, BSD, SVN, Git, Excel, GDB, Maven, Make, Agile, Jenkins, GCC/G++, Perf, Valgrind

Professional Experience

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

Co-Founder and Owner, *Naperville Wedding Circle,* Naperville, IL.   Jul. 2014 - Sept. 2015

- Created Python application using Flask + MySQL + JavaScript to service +500/month brides and unique visitors
- Lead sales team in creating effective marketing strategies which helped grow the company 190% in four quarters
- Diagnosed and fixed performance bottlenecks increasing scalability and reducing monthly costs

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 national 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

Xv6 mmap [closed source per UIC academic policy] - Academic (C)   Sept. 2018 - Oct. 2018

- Created a custom mmap implementation for eager and lazy loading to improve disk access time for large files
- Re-implemented imshow.c user application using custom mmap implementation improving application speed by an order of magnitude
- Extended ioctl display driver to support VGA mode plus the custom mmap implementation for imshow.c further improving functionality

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

C Compiler [closed source per UIC academic policy] - Academic (C + MIPS)   Jan 2018 - May 2018

- Developed C compiler front-end using Yacc, Flex, & Bison
- Used a custom AST format to help with MIPS code generation
- C89 compliant