Jean-Paul Larocque
Software Developer and Electronics Designer

Spokane, WA - Email me on Indeed: indeed.com/r/Jean-Paul-Larocque/c8d790f8f82cba63

I love technology and I love to solve problems. My professional background has been in software development and information technology. I have most recently been learning electronic product design, including MCU programming, circuit design, and PCB layout.

My goal is to develop myself professionally, adding structure and direction to my career.

Authorized to work in the US for any employer

WORK EXPERIENCE

Owner/Electronics Designer

Faster Than Light   -   Spokane, WA -

January 2016 to Present

Developing entertainment lighting software & hardware. Designing products that make it easy to enjoy pretty & colorful visual effects, and working to make those products accessible to event venues and consumers.

• Wrote a suite of 21 LED animations and utilities in C, along with a library and nine drivers.
• Prototyped Ethernet and 802.11 (Wi-Fi) adapters to connect animation software with addressable LEDs.
• Designed and delivered custom LED wearable electronics.
• Deployed display and lighting services for dozens of music events and fan conventions. Faster Than Light proudly sponsors KuroNekoCon by furnishing volunteer lighting services for their events.

IT Consultant

Argia   -   Spokane, WA -

March 2016 to November 2017

Advised on system and networking technology for local businesses, and performed hands-on implementation.

• Supported Windows and Linux-based desktop machines. Maintained a Linux-based desktop system image for non-technical users, along with accompanying deployment & disk-imaging practices.
• Integrated system components and automated tasks with system and web scripting.
• Deployed and contributed to an in-house wiki, used to organize the firm's IT notes and knowledge.
• Evaluated and integrated VoIP software, hardware, and service providers.
• Developed solutions to unique network problems, such as DNS-based web filtering, multihomed network connectivity with failover, and on-the-fly HTTP/HTTPS content rewriting to fix JavaScript & CSS bugs in vendor web sites.

Owner/Software Developer

Sure Journey Software   -   Spokane, WA -

June 2007 to October 2011

Developed and maintained web-based trip planning services for transit riders. Bootstrapped the business and marketed its services to transit agencies.

Debuted En Route Spokane, the region's premiere public transit trip planner.

• Modeled street maps and transit routes as a dynamic, time-varying graph.
• Extended classic pathfinding algorithms to account for time-of-day and other variables, making scheduled transit trip planning possible.
• Transformed and validated schedule and path data for Spokane Transit's 40 fixed routes.
• Completed software and data development in six months.

Served the Linx transportation cooperative in their mission to provide unified information and marketing services for transit in the Greater Yellowstone area.

• Delivered REST-based backend services (SaaS), serving eight transit agencies across 59 counties.
• Provided client support to assist in understanding our API and resolve any issues that arose.

Applications Programmer & IT Technician

Argia / Nominasoft LLC   -   Spokane, WA -

March 2008 to September 2011

Applied Python and Debian expertise in systems automation, administration, and application development.

• Helped migrate the company from a legacy in-house Linux distribution for its application servers to a Debian-based system image.
• Developed several deployment tools for production servers.

Developed a specialized employee screening application for Windows, using Python and wxWidgets.

• Implemented fuzzy searching algorithms to robustly match employee names, even against poorly-formatted or incorrectly-entered records.
• Carefully profiled and optimized core algorithm implementations to cut down on application CPU time.
• Under the direction of our software architect, worked to reduce time complexity (versus a naïve "M×N" implementation) by applying custom algorithms to reduce search space.
• Advocated for and won the opportunity for the company to get consultation from a linguist, in order to minimize false positives with certain styles of names. False positives could adversely impact real people.

IT Contractor

The TOVA Company -

July 2007 to May 2008

Maintained virtual machines on a hosted server. Served as on-call support for system feature requests and emergencies.

• Applied Xen virtualization to numerous specialized, compartmentalized Linux application servers. Virtualization was a stated goal in order to help prevent cross-application compromise in the event of a computer security intrusion.
• Assisted in technical evaluations of managed server and hosting providers.

IT Technician & Junior Programmer

Argia - Spokane, WA -

February 2001 to September 2004

Installed and configured Linux-based servers and routers. Performed maintenance and other server administration tasks. Diagnosed and corrected hardware, software, and network problems, at our data center and at customer sites.

• Developed web applications, often integrating with database systems and system tools. Wrote system software and adapted open-source utilities for internal system management tasks.
• Documented system configuration and administration procedures.

SKILLS

Linux (10+ years), Python (5 years), C (5 years), Common Lisp (4 years), Electronics Design (3 years), PCB Layout (1 year)