STACY GAUDREAU

SOFTWARE & SYSTEMS DEVELOPER

PROFESSIONAL STATEMENT

Self-starter driven to learn and discover new abilities and technology. Founder of an audio electronics company and autodidactic circuit designer and programmer. A decade combined experience in low-level embedded systems programming with C and C++. Extensive experience transforming product concepts into reality.

CONTACT

WEB | stacygaudreau.com

LOC | Montreal, Canada

EDUCATION

BSc Computer Science

University of London

2019 – Present

Electrical & Computer Engineering

University of Manitoba

2011 - 2013

SKILLS OVERVIEW

Independent & rapid self-teaching

C, Python, C++ & JavaScript

Unix-based operating systems

Virtualization and storage technologies

Business & financial logic

Low-level debug and troubleshooting

Database & web technologies

Computer networking

EXPERIENCE

Founder, Audio Electronics Design

Hexinverter Électronique | 2011 – 2022

Invention, circuit design, development and manufacture of more than a dozen audio electronic products, including operational tasks

- Developed and shipped embedded systems with software development in C and C++
- Invented creative workflows and automation to solve challenging engineering problems
- Leveraged software and scripting tools such as Python and its libraries to simulate systems and overcome design challenges
- Managed sales, shipping and distribution to a worldwide network of boutique audio dealers. Everywhere from North America to South Africa and Indonesia
- Troubleshooted our way out of problems using a variety of equipment such as oscilloscopes, logic analysers and signal generators
- Worked closely with and managed a small team to provide manufacturing at scale, graphics and media design
- Writing thorough technical documentation in the form of user manuals, product packaging, assembly instructions and test procedures

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CAREER MOTIVATION

Seeking to leverage a diverse background in hardware and business toward a career in the software and computer sciences.

At present, studying part-time toward a BSc CS in order to supplement a lifetime of learning experiences with more rigorous theory.

LANGUAGE PROFICIENCY

English - written and spoken.

RECREATION

Gardening & hydroponics

Motorcycles

Nature

LEARNING ENDEAVOURS & PROJECTS

Eurorack Analog Modular Synthesizers

Hexinverter Électronique

Having made a name for ourselves developing kit products, in 2013 we launched a line of entirely contract-manufactured modular synthesizer devices. This became our bread and butter for nearly a decade. Some notable design, business and learning achievements include

- Becoming recognised worldwide as a market leader in the niche our main product line carved out
- Establishing key business relationships with manufacturing partners in order to scale production
- Researching and leveraging textbook schematics and expired patents in order to understand principles and practise. Many inspirations formed and gave way to new product ideas and advancements
- Enhanced predominantly analog product concepts with embedded systems to provide user interface and modern amenities

Rate My Derp!

A production-grade web application and deployment built using Python, Django, JavaScript and other web technologies. A learning exercise to further skills in software as well as deployment considerations in a Linux environment. Some highlights include

- Following industry best practices including test-driven development
- Integration of InfluxDB to provide a timeseries database and metrics dashboard for monitoring the deployment and application KPIs
- Using Celery to deliver periodic application measurements and statistics to the timeseries database

Networking, Server & Compute Lab

Design and administration of a server cluster from used enterprise datacentre parts acquired through auction. For learning about networking, virtualisation, distributed and network storage technologies, with an emphasis on open-source technology. Provides a local software development and computing hardware environment including

- A multi-node Debian-based KVM hypervisor cluster
- CentOS and Ubuntu server VMs
- Deployments of various open-source software including a modified ERP system which saved Hexinverter thousands of dollars a year
- Monitoring and safe-shutdown automations
- ZFS storage for redundant datastore and file backup targets