Benjamin Stroobach-Wilson	Computer Systems - Networking

Contact Information

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- ○ Canine-Table

Objective

To apply my diverse skills in software development, system integration, and automation to build innovative and efficient solutions. With a focus on learning, adaptability, and collaboration, I aim to contribute meaningfully to projects that benefit from my expertise in cutting-edge tools and technologies, from kernel programming to web development.

Education

🎓 Algonquin College - Computer Systems - Networking (2024)

- ➡ CST8378 Advanced Enterprise Networking
- ➡ CST8249 Network Security
- ➡ CST8317 Wireless Network Fundamentals
- ➡ CST8248 Emerging Technologies
- ➡ CST8371 Introduction to Enterprise Networking
- ➡ CST8342 Windows Enterprise Administration
- ➡ CST8206 Foundation of IT Service Management
- ➡ CST8246 Network Services Administration
- ➡ SCI2200 DyNAmic DNA: You are not alone
- ➡ CST8245 Database Management and Interfacing
- ➡ CST8305 GNU/Linux Server Administration
- ➡ CST8208 PC System Technology
- ➡ ENL1813T Communications I

⌃ Education

- CST8300 Achieving Success in Changing Environments
- CST8207 GNU/ Linux System Support
- CST8182 Networking Fundamentals
- CST8202 Windows Desktop Support
- CST8315 Routing and Switching Fundamentals
- CST8200 Windows Domain Administration
- MAT8002 Numeracy and Literacy

Other Courses

- C++ Programming Course - Beginner to Advanced
- Flask Course - Python Web Application Development
- PHP Full Course for non-haters
- C Programming Full Course for free
- MySQL Full Course for free
- Java Full Course for free
- JavaScript Full Course for free
- JavaFX GUI Full Course for free
- Learn Data Structures and Algorithms for free
- Ruby Programming Language - Full Course
- Learn Ruby on Rails - Full Course
- Python Full Course for free
- LaTeX – Full Tutorial for Beginners
- Learn C Programming and OOP with Dr. Chuck [feat. classic book by Kernighan and Ritchie]
- HTML & CSS Full Course for free

Certifications

⊞ First Aid Certifications

- ➡ Airway Management
- ➡ Bronze Star
- ➡ Bronze Medallion
- ➡ Bronze Cross
- ➡ WSI Part I
- ➡ WSI Part II
- ➡ NLS (National Lifeguarding Society)
- ➡ AODA online training

Work Experience

👤 IT Assistant to a Doctoral Researcher
➤ University of Sheffield, Sheffield, South Yorkshire, England

- ➡ Provided technical support and assistance to a doctoral researcher, ensuring smooth operation of computing resources and research tools.
- ➡ Assisted in setting up and maintaining hardware, software, and network configurations.
- ➡ Troubleshot technical issues and resolved them promptly to minimize disruption to the research process.

👤 Instructor
➤ Canterbury Recreation Complex, Ottawa, Ontario, Canada

- ➡ Designed and delivered engaging and informative lessons for students ranging from beginners to level 9.
- ➡ Created customized lesson plans to meet the diverse needs and skill levels of students.
- ➡ Utilized a variety of teaching methods and tools to facilitate learning and keep students motivated.

⌃ Work Experience

- ➡ Monitored student progress and provided constructive feedback to help them improve their skills.

- ➡ Organized and conducted practical sessions, demonstrations, and hands-on activities to enhance learning experiences.

- ➡ Fostered a supportive and inclusive learning environment to encourage student participation and engagement.

- ➡ Collaborated with other instructors and staff to ensure a consistent and high-quality learning experience for all students.

👤 Web Development
🧭 https://stephaniewilsonediting.ca

- ➡ Designed and developed a professional website for Stephanie Wilson Editing, showcasing editing services with a focus on user experience and accessibility.

- ➡ Implemented responsive and modern web design principles to ensure seamless performance across devices, from desktop to mobile.

- ➡ Built and optimized interactive features using HTML, CSS, and JavaScript, enhancing user engagement and functionality.

- ➡ Managed website content and layout, reflecting the brand's voice and maintaining consistency with its business goals.

- ➡ Incorporated SEO best practices to improve online visibility and search engine rankings.

- ➡ Coordinated with the client to tailor the website to their vision, incorporating feedback to deliver a polished final product.

Languages

- ➡ Utilized Lua extensively for scripting in Neovim, creating custom plugins and automation to enhance the editor's functionality.

- ➡ Applied Lua in LuaTeX for typesetting automation and advanced document customization, leveraging its lightweight and efficient design.

⌃ Languages

- Integrated PHP into broader toolchains, combining it with JavaScript and other technologies for client-server communication.

- Customized widely-used PHP tools like phpMyAdmin and phpLDA-Padmin, integrating advanced modifications to enhance functionality, usability, and efficiency.

- Improved database and LDAP management workflows by tailoring these tools to address specific requirements and streamline operations.

- Developed complex documentation using both LaTeX and Plain TeX, emphasizing precision, customization, and elegant presentation.

- Leveraged TeX to build modular and reusable structures, ensuring professional, polished outputs across documenting coding projects.

- This resume itself serves as a demonstration of my expertise, showcasing TeX as a tool not just for technical writing but for crafting intricate documentation.

- Transitioned completely to POSIX Shell scripting for increased portability, minimalism, and compliance across systems.

- Developed high-performance automation frameworks, moving away from Bash while maintaining the ability to script in Bash when required.

- Designed and implemented advanced data structures, including queues, stacks, and linked lists, leveraging AWK's capabilities for high-performance scripting.

- Developed robust algorithms, such as quicksort (qsort) and other sorting techniques, written entirely in AWK for computational precision and speed.

- Crafted modular automation frameworks, integrating AWK-based logic to streamline workflows across diverse environments, while maintaining adaptability to Bash as needed.

⌃ Languages

- Specialized in using Python for Flask-based development, building lightweight and scalable web applications.

- Integrated Python as a backend tool for rapid prototyping, client-server communication, and API development.

- Combined Python with other technologies to implement clean, modular solutions that align with project requirements.

- Utilized Perl primarily for XAMPP setups, building and maintaining dynamic web services and tools.

- Applied Perl for robust text processing and scripting tasks, leveraging its strengths in modularity and speed for specific use cases.

- Enhanced Perl-based workflows by integrating with broader toolsets and scripting frameworks.

- Developed kernel modules, demonstrating an advanced understanding of low-level programming, memory management, and system interactions.

- Wrote high-performance code for critical systems, ensuring reliability and efficiency in hardware-software communication.

- Completed training in C++ through freeCodeCamp, gaining proficiency in object-oriented programming, data structures, and algorithms.

- Built web applications and tools using Ruby on Rails, focusing on rapid development, clean design, and scalability.

- Leveraged Ruby's flexibility to create modular, maintainable codebases for both personal and professional projects.

- Gained deep expertise in the Ruby ecosystem by integrating third-party libraries and ensuring seamless deployment processes.

⌃ Languages

- Applied Java to implement and optimize data structures, including arrays, linked lists, stacks, queues, and trees, showcasing proficiency in algorithm design and memory management.

- Developed dynamic and visually engaging applications using JavaFX, integrating responsive user interfaces with robust backend logic.

- Combined object-oriented programming principles with Java's rich ecosystem to create scalable solutions for both personal and collaborative projects.

Operating Systems

- Specialized in leveraging FreeBSD jails to implement lightweight, secure, and isolated environments for applications and services.

- Automated jail creation, management, and resource allocation using POSIX-compliant scripts to streamline workflows and ensure high efficiency across deployments.

- Harnessed jails for advanced containerization and virtualized setups, benefiting from FreeBSD's native ability to restrict network, file system, and process access within individual jails.

- Customized system installations with advanced scripting, leveraging Portage for seamless software compilation and optimization.

- Built highly modular tools to streamline configuration across Gentoo's flexible ecosystem.
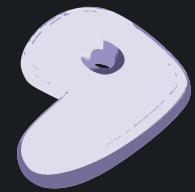
- Optimized container deployments by leveraging its compact footprint to optimize resource utilization.

- Expertly configured Linux network namespaces and software-defined networking (SDN) setups, tailoring Alpine Linux to complex networking workflows and high-performance environments.

⌃ Operating Systems

- ➡ Leveraged robust scripting to automate package management and integrate fallback mechanisms for diverse system utilities.
- ➡ Enhanced system performance by utilizing AWK's sorting algorithms and POSIX-compliant modules.

- ➡ Utilized physical hardware for flashing and customization to develop tailored networking solutions optimized for specific use cases.
- ➡ Designed and implemented automated scripts to streamline OpenWRT installations, simplify networking configurations, and enhance device management efficiency.
- ➡ Adapted OpenWRT systems to meet unique hardware constraints, ensuring optimal performance and system versatility.

- ➡ Specialized in integrating automation scripts within OpenSUSE's YaST ecosystem to simplify system administration.
- ➡ Developed modular scripting solutions optimized for package management and version upgrades via Zypper, ensuring seamless operations across environments.
- ➡ Focused on leveraging POSIX-compliant tools to enhance script portability and efficiency in OpenSUSE setups.

- ➡ Designed and integrated advanced network frameworks, automating configurations for iproute, eBPF, SELinux, and nftables to optimize system performance and security.
- ➡ Leveraged modular POSIX-compliant scripts to streamline deployment, enhance scalability, and maintain consistency in enterprise-grade networking setups.
- ➡ Developed tools to simplify complex network management workflows, ensuring seamless integration across diverse infrastructure environments.

⌃ Operating Systems

➡ Serves as the reliable backbone for professional, personal, and experimental projects, consistently supporting diverse workflows and objectives.

➡ Fully embraced the rolling release model for immediate access to the latest software and features, aligning with a commitment to explore, test, and innovate with cutting-edge technologies.

➡ Designed modular scripts and frameworks to automate system setup and ensure seamless integration of new updates, even when they introduce breaking changes.

➡ Leveraged the Arch User Repository (AUR) through yay and community-driven resources to maintain a highly customizable, high-performance system tailored to ever-evolving needs.

➡ Arch Linux serves as a versatile platform, embodying a philosophy of experimentation, adaptability, and continuous learning that drives innovation in software development.

Web Development

➡ Advanced proficiency in vanilla JavaScript, utilizing the core language to develop dynamic, lightweight, and efficient web applications.

➡ Specialized in creating interactive front-end components without relying on external libraries or frameworks, ensuring minimalistic and highly performant designs.

➡ Implemented custom algorithms and data manipulation logic to enhance browser-based user experiences and optimize DOM interactions.

➡ Leveraged JavaScript for event handling, animations, asynchronous programming (Promises, async/await), and API integrations, focusing on clean, modular coding practices.

➡ Designed reusable utility functions to streamline development and ensure adaptability across projects.

⌄ Web Development

- Proficient in using jQuery to simplify DOM manipulation, event handling, and AJAX requests in earlier web development projects.

- Leveraged its robust and intuitive API to streamline interactions between HTML, CSS, and JavaScript, ensuring cross-browser compatibility.

- While knowledgeable about its capabilities, transitioned to modern JavaScript techniques (e.g., ES6+, native DOM APIs) as advancements have reduced the necessity for jQuery in contemporary workflows.

- Retained familiarity with jQuery for maintaining legacy systems and integrating solutions where required.

- Built structured, semantic web pages using HTML, ensuring accessibility, clarity, and adaptability across devices and browsers.

- Designed and styled dynamic, visually engaging user interfaces using CSS, with a focus on responsive design and cross-platform compatibility.

- Combined HTML and CSS to craft custom layouts, animations, and interactive elements, creating seamless user experiences.

- Leveraged modern techniques, including CSS Grid, Flexbox, and media queries, for precision in layout management and responsiveness.

- Enhanced web applications by integrating CSS animations and transitions to provide polished, user-friendly interactions.

- Leveraged Rails' convention-over-configuration philosophy to streamline development, ensuring efficient workflows and clean, maintainable code.

- Integrated Rails with RESTful APIs and databases, enhancing functionality through active record, migrations, and associations.

- Custom-built features and optimized Rails applications to align with project requirements, reducing resource overhead while ensuring high performance.

- Applied deep expertise in Ruby on Rails to create end-to-end solutions, from database design to front-end integration, emphasizing rapid development without sacrificing quality.

⌃ Web Development

- Proficient in using Flask, a minimalist Python web framework, to build lightweight and scalable web applications.

- Designed and implemented RESTful APIs, seamlessly integrating back-end logic with front-end frameworks to deliver responsive and dynamic applications.

- Leveraged Flask's extensibility to integrate third-party libraries, optimize performance, and enhance functionality tailored to project requirements.

- Focused on writing clean, modular code to ensure maintainability and rapid prototyping, taking full advantage of Flask's flexibility and simplicity.

- Developed end-to-end solutions using Flask, from designing database schemas with SQLAlchemy to deploying applications in production-ready environments.

- Leveraged its grid system, pre-designed components, and utilities to rapidly develop elegant and consistent user interfaces.

- Customized themes and extended Bootstrap's functionality to tailor designs for specific projects, while maintaining its robust, built-in responsiveness.

- Integrated Bootstrap with modern JavaScript workflows, ensuring seamless compatibility and efficient application development.

- Expert in building responsive and mobile-first web applications using Bootstrap, the only UI framework you need!

- Created and manipulated SVGs programmatically using Vanilla JavaScript, leveraging the DOM namespace API for precise control and customization.

- Designed dynamic, interactive graphics by combining JavaScript logic with SVG properties, enhancing web applications with visually engaging elements.

- Specialized in integrating SVGs into modern web projects, applying advanced techniques for animations, event handling, and real-time updates.

⌃ Web Development

canine-table-brave-startup-page.onrender.com

stephaniewilsonediting.ca

Deployed Sites

Tools and Technologies

- ➡ Skilled in using iproute2 tools for network configuration, routing, and traffic shaping.

- ➡ Experienced in using nftables for creating complex firewall rules and managing network security.

- ➡ Skilled in using eBPF for network performance analysis, monitoring, and enhancing security.

- ➡ Proficient in creating, managing, and deploying Docker containers. Experienced in writing Dockerfiles and managing Docker Compose files.

- ➡ Skilled in using Podman for container lifecycle management, including building, running, and pushing containers.

- ➡ Experienced in using runc as a container runtime for running and managing containers.

- ➡ Proficient in using containerd for container orchestration and management within Kubernetes clusters.

- ➡ Proficient in using Buildah to create and manage container images, ensuring security and compliance.

- ➡ Experienced in using crun as a container runtime to efficiently manage containerized.

- ➡ Experienced in using Git for source code management, branching, merging, and collaboration in a team environment.

⌃ Tools and Technologies

- ➡ Skilled in configuring and customizing Neovim with Lua and Vim script to enhance productivity and streamline development workflows.

Database

- ➡ Proficient in managing and optimizing MariaDB databases for high-performance and scalable applications.

- ➡ Utilized MariaDB as the primary backend for projects, enabling efficient data storage and retrieval through carefully designed schemas and query optimization.

- ➡ Integrated phpMyAdmin with MariaDB for streamlined database management, customizing its functionality to align with specific project needs.

- ➡ Specialized in writing and optimizing SQL queries, implementing stored procedures, and ensuring data integrity across complex systems.

- ➡ Leveraged MariaDB's compatibility with MySQL to maintain flexibility while benefiting from enhanced features and performance improvements.

⌃ Database

➡ Proficient in using MongoDB for NoSQL database management, enabling scalable and flexible data storage tailored to diverse application requirements.

➡ Designed and optimized schemas using MongoDB's document-based structure to facilitate efficient querying and data manipulation.

➡ Developed and maintained robust systems integrating MongoDB as a backend for dynamic web applications.

➡ Leveraged MongoDB's features, such as aggregation pipelines, indexing, and replication, to enhance performance and reliability in high-demand environments.

➡ Applied MongoDB expertise to manage unstructured data and implement real-time solutions in modern application architectures.

➡ Proficient in using SQLAlchemy, Python's ORM, to simplify database interactions and streamline application development.

➡ Leveraged SQLAlchemy with SQLite to design and manage lightweight, file-based databases for small to medium-scale projects.

➡ Built efficient database schemas and relationships using SQLAlchemy's declarative model, ensuring clean and maintainable back-end systems.

➡ Utilized SQLite for quick prototyping and development, taking advantage of its simplicity and minimal setup requirements.

➡ Combined SQLAlchemy's ORM features with direct SQL queries to optimize performance and tailor database operations to project-specific needs.