

Joe Jaison T

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EDUCATION

Electrical Engineering and Computing Technology

University of Ottawa, Ottawa, Ontario, Canada

Clubs and societies: uORocketry, uOFFPGA

September 2023 – Present (expected 2028)

Computer Systems Technician - Networking

Centennial College, Toronto, Ontario, Canada.

Clubs and societies: Toastmasters International

September 2019 – April 2021

SUMMARY OF SKILLS

- Designed and optimized circuit schematics, BOMs, and PCB layouts using Altium Designer and KiCad.
- Manufactured PCBs with SMD and through-hole components using advanced soldering techniques.
- Leading the Avionics Hardware sub-team for the University of Ottawa Rocketry Club.
- Programmed microcontrollers in Rust and C/C++ using JTAG with Segger JLink debug probe for embedded systems.
- Utilized STM32CubeIDE and Arch Linux environments, alongside probe-rs and OpenOCD, to program microcontrollers.
- Worked extensively with Atmel ATSAME51 and ST STM32 series microcontrollers.
- Proficient in development boards and SBCs with microprocessors, including Arduino, Raspberry Pi, and headless SBCs.
- Designed network infrastructures and configured servers for FTP, DNS, and DHCP topologies in professional settings.
- Conducted FPGA simulations and training using Altera Cyclone IV with Verilog and Block Diagram Files (BDF).
- Sound knowledge of CAD software like solid works and tinkercad.
- Troubleshoot and maintained Fiber Internet, DSL, and home phone networks.
- Experienced in cybersecurity for distributed systems using network-based firewalls.
- Proficient in network monitoring tools such as Wireshark, Nmap, and Aircrack-ng in lab environments.
- Experience working with Metasploit for pen testing in lab environments.
- Skilled in programming languages: Java, Python, GoLang, C/C++, Rust, Scheme, Prolog, Kotlin, and Verilog.
- Developed web applications using HTML, CSS, TypeScript, and Flask frameworks.
- Proficient in command-line tools and version control systems such as Git, including GitHub Actions for automated deployments.
- Built network environments and configured servers using Cisco Packet Tracer simulations.
- Skilled in fiber splicing and low-voltage communication systems, like DSL, Ethernet, and Passive Optical Network (PON).
- Managed over five GSM/4G/5G network projects with a focus on regulatory compliance and operational efficiency.
- Delivered technical support, system repairs, and configurations for Bell's customer base.
- Collaborated on the design and implementation of reliable network environments in multiple team projects.
- Experienced in user management and IT administration for Windows and Linux environments.
- Successfully completed CCNA and CompTIA A+ training from Centennial College.
- Practiced public speaking, delivering presentations, and articulating ideas clearly and effectively to diverse audiences.
- Embraced opportunities for constructive feedback and public speaking as an active member of Toastmasters International Club.
- Sound understanding of celestial objects, sky observation, and astronomy principles.
- Proficient in handling equatorial telescope mounts and performing precise calibration of telescopes.

PROJECTS

uORocketry – University of Ottawa’s Rocketry Club, Ottawa, ON

September 2023 - Present

Electrical Engineer

- Proficiency in Altium Designer and KiCad: Designed and reviewed circuit schematics, generated BOM, PCB layouts, and routing to ensure optimal performance.
- Aerospace-Grade Component Selection: Conducted thorough research on DigiKey and Mouser to select high-quality components and materials for PCB manufacturing, ensuring compliance with industry standards and safety requirements.
- PCB Manufacturing: Manufactured PCBs using surface-mount (SMD) and through-hole components, employing tools such as a heat gun and soldering iron.
- Microcontroller Programming: Programmed and flashed onboard microcontrollers using Rust and Jlink probe with JTAG, ensuring system functionality.
- Leadership: Appointed as Avionics Hardware Sub-Team Lead, overseeing the design, development, and implementation of avionics systems while mentoring over five team members and ensuring project milestones were achieved.
- Cross-Team Collaboration: Coordinated with other sub teams to gather and integrate design requirements and restrictions, ensuring compatibility and seamless implementation across all systems.

Centennial College, Toronto, ON

January 2021 – April 2021

Technician Project – Grade A+

- Networking Equipment Setup: Worked in a team to establish a robust and fully functional network environment, ensuring high reliability and seamless performance.
- Server Configuration: Played a critical role in setting up and configuring servers for various functionalities, including FTP, DNS, HTTP/S, and DHCP, meeting project specifications.
- Network Topology Design: Contributed to designing a logical and efficient network topology to support optimal functionality and scalability.
- Security Measures Implementation: Implemented network security measures, including configuring firewalls, applying access control protocols to safeguard data and preventing unauthorized access.
- Team Collaboration: Leveraged strong team coordination to complete project deliverables efficiently, demonstrating effective communication and collaboration.

Centennial College, Toronto, ON

January 2020 – April 2020

ICET Workshop – Grade A

- Computer and Accessory Repair: Repaired and configured computers and accessories per appointment, maintaining meticulous documentation.
- School Equipment Servicing: Collaborated with a team to service and repair school equipment, ensuring functionality and minimizing downtime.
- Guided Problem-Solving: Addressed technical issues with precision and efficiency, applying guidance and strategies from professors to prevent component damage.
 - Proficiency in Ticketing Systems: Utilized ticketing systems like Jira to track and manage repair tasks, ensuring timely resolution and clear communication.

WORK HISTORY

Yupana Inc, Toronto, ON

June 2022 – August 2023

Site Technician/Auditor

- Base Band Unit Integration: Integrated Ericsson base band units and radios in cell sites for 4G/5G networks, following precise installation guidelines.
- Compliance and Supervision: Followed directions from site supervisors and adhered to company guidelines during telecommunication unit installations.
- Project Management: Managed GSM/4G/5G network projects, coordinating tasks, schedules, and resources to ensure successful deployment and operation.
- Data Auditing and processing: Recorded, reviewed, and interpreted audit data using Excel and Power Bi, to evaluate operational effectiveness and compliance.
- Special Projects: Managed additional duties and special projects to ensure efficient business operations and regulatory compliance.

Bell Canada, Toronto, ON

August 2021 – May 2022

Field Service Technician (Structured Cabling) - BTS

- Network Infrastructure Maintenance: Worked on network infrastructure, including Pure Fiber Internet, home phones, and DSL.
- Technical Support: Repaired, installed, and troubleshoot network devices and infrastructure using proprietary software.
- Fiber Splicing and Verification: Spliced and verified fiber connections to ensure seamless connectivity and high-quality performance.
- Riser Technician Training: Trained as a riser technician, proficient in working at heights and handling fiber backbones.
- Technical Assistance: Assisted fellow technicians with technical difficulties and roadblocks, ensuring project success.
- Customer Service: Provided exceptional service to customers through positive communication, professional appearance, and conduct.
- Brand Representation: Actively supported the Bell brand by highlighting its benefits to customers, enhancing their satisfaction and loyalty.

CDI Technologies, Markham, ON

May 2020 – June 2020

Computer Technician

- System Repair and Configuration: Diagnosed, repaired, and configured computers for clients, ensuring that both hardware and software components met performance standards.
- Efficiency in Order Fulfillment: Consistently achieved daily targets for system repairs and configurations, ensuring timely project completion and delivery to clients.
- Team Collaboration: Partnered with over ten technicians and non-technical staff to enhance team efficiency, contributing to faster project completion and improved customer satisfaction.
- Proficiency with Tools: Utilized hand tools (e.g., screwdrivers, pliers) and power tools (e.g., drills, heat guns) to efficiently service, repair, and configure computers and hardware.
- Technical Expertise: Gained practical experience with a range of hardware and software tools, further solidifying knowledge of IT systems.