

# Joe Jaison T

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## EDUCATION

### Electrical Engineering and Computing Technology

University of Ottawa, Ottawa, Ontario, Canada

Clubs and societies: uORocketry, uOFPGA

September 2023 – Present (expected 2028)

### Computer Systems Technician - Networking

Centennial College, Toronto, Ontario, Canada.

Clubs and societies: Toastmasters International

September 2019 – April 2021

## SKILLS SUMMARY

- 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 with soldering iron and heat gun.
- Leading the Avionics Hardware sub-team for the university of Ottawa Rocketry club, showcasing leadership skills.
- Programmed microcontrollers in Rust and C/C++ using JTAG with Segger debug probes 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).
- Troubleshoot and maintained Fiber Internet, DSL, and home phone networks with efficiency.
- Adept in cybersecurity for distributed systems using network-based firewalls.
- Experienced with network monitoring tools such as Wireshark, Nmap, and Aircrack-ng in lab environments.
- Skilled in multiple 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 Git, including GitHub Actions for automated deployments.
- Built network environments and configured servers using Cisco Packet Tracer simulations.
- Managed 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 team projects.
- Sound understanding of celestial objects, sky observation, and astronomy principles.
- Proficient in handling equatorial telescope mounts and performing precise calibration of telescopes.

## WORK HISTORY / PROJECTS

### uORocketry – University of Ottawa's Rocketry Club, Ottawa, ON

September 2023 - Present

#### Electrical Engineer

##### Key Achievements:

- Proficiency in Altium Designer: Designed and reviewed circuit schematics, generated BOM, PCB layouts, and routing to ensure optimal performance.
- Aerospace-Grade Component Selection: Conducted thorough research 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, optimizing system functionality.

### Yupana Inc, Toronto, ON

June 2022 – August 2023

#### Site Technician/Auditor

##### Key Achievements:

- Base Band Unit Integration: Integrated base band units in cell sites for 2G/3G/4G/5G networks, following precise installation guidelines.

- Compliance and Supervision: Followed directions from site supervisors and adhered to company guidelines during telecommunication unit installations.
- Data Auditing and processing: Recorded, reviewed, and interpreted audit data 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**

### **Key Achievements:**

- 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.
- 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**

### **Key Achievements:**

- System Repair and Configuration: Expertly repaired and configured computer systems as per client requests, ensuring all hardware and software components were functional and up to date.
- Efficiency in Performance: Consistently met daily targets, demonstrating the ability to handle computer systems swiftly and accurately. This efficiency contributed to the timely fulfillment of orders.
- Team Collaboration: Worked closely with a team of technicians, coordinating efforts to ensure early completion of projects. This collaborative environment enhanced overall productivity and customer satisfaction.

## **Centennial College**

**Toronto, ON**

**January 2020 – April 2020**

**ICET Workshop**

### **Workshop Achievements:**

- 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 to track and manage repair tasks, ensuring timely resolution and clear communication.

## **Centennial College**

**Toronto, ON**

**January 2021 – April 2021**

**Technician Project**

### **Project Achievements:**

- Networking Equipment Setup: Collaborated with a team to establish a fully operational network environment, ensuring optimal performance and reliability.
- Team Collaboration: Leveraged past learning experiences and group coordination to achieve project outcomes effectively and efficiently.
- Server Configuration: Played a key role in configuring servers, including FTP, DNS, HTTP/S, and DHCP, to meet project requirements.
- Network Topology Design: Contributed to designing and implementing the network topology, aligning with project goals and technical standards.