

# Toushal Sewruttun

Fredericton, New Brunswick (Open to relocation)

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I am a bilingual tech-savvy professional with experience building systems from the ground up, and a strong focus with consumer experience, research, and practical problem-solving. I am enthusiastic about connecting and fostering relationships with others, with a passion for communication and organization.

## Relevant Skills

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- **Programming & Scripting:** C#, Java, Python, Kotlin, TypeScript, C++, C, SQL
- **Systems & Network:** Unity, A/B Testing, CI/CD, DNS, REST API, TCP/IP, Wireshark
- **Communication:** Fluent in writing and speaking in English, French, and Creole; basic communication skills in German.
- **Soft Skills:** Technical leadership, Project Management, Mentorship, Cross-functional collaboration

## Work Experience

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### Research Lead Developer – HCI Lab at UNB (04/2024 – 05/2025)

Fredericton, NB

- Led the deployment, troubleshooting of audio-visual systems and evaluated system performance based on motion tracking results. Gained extensive hands-on experience with HoloLens 2 and other VR/MR headsets.
- Developed strong project management, communication, and mentoring skills while coordinating academic research projects.
- Guided a master's student as they collaborated with me on the human tracking process of the project.

### Research Associate – HCI Lab at UNB (05/2023 – 04/2024)

Fredericton, NB

- Engineered an end-to-end IoT-based robotic system combining Raspberry Pi, motor drivers, and serial communication protocols to enable real-time control and feedback.
- Developed a robot controller application in Kotlin for wireless command transmission and monitoring as part of a human-robot interaction study.
- Integrated Google Firebase Realtime Database with Python for cloud-based state syncing and streaming between robot and controller app.

### Summer Cleaning Leader – UNB Conference Services (04/2022 – 08/2022)

Fredericton, NB

- Recruited, trained, and supervised a team of student employees, ensuring daily operations ran smoothly.
- Coached staff on strategies to enhance performance and improve customer relations.
- Resolved complaints and technical issues (e.g., Wi-Fi connectivity, access control systems, AV equipment), ensuring a smooth and positive guest experience through effective problem-solving and communication.

### Residence Assistant – UNB ResLife (2020, 08/2022 – 04/2023)

Fredericton, NB

- Provided direct support to students living in residence, promoting a welcoming, inclusive, and supportive environment.
- Organized and delivered educational and social programs to engage with residents.
- Resolved disputes between roommates and offered guidance to students dealing with emotional, academic, and personal difficulties.

## Volunteer Experience

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### Technical support assistant - Perunovic Lab in the UNB Department of Psychology (01/2025 – Present)

- Helped students' projects with using HTML on Qualtrics, an online survey platform, and resolved issues with survey flow.
- Aided students with technical and design aspects of their projects.(e.g. projectors, Microsoft Excel, Canva, Photoshop)

## Grants & Certifications

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| • Bachelor of Computer Science (2023)                   | University of New Brunswick |
| • Mitacs Grant for AI Markerless Motion Tracking (2024) | University of New Brunswick |
| • Diplôme d'études en langue français (DELF B2) (2017)  | Alliance Française          |
| • New Brunswick Driver's License (Class 5)              | Province of New Brunswick   |