

# GATLAT DENG BUM

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## Summary

**McGill CS & Psychology student** driven by the intersection of algorithmic efficiency and human-centric design. I'm a hands-on builder who enjoys the challenge of learning new frameworks on the fly to solve real-world problems alongside a team.

## Education

### McGill University

*Computer Science & Psychology*

**May 2028**

*Montreal, Quebec*

- **Achievements:** WUSC-SRP Scholarship to study at McGill University 2024
- **Coursework:** Object-Oriented Programming, Calculus, Web Development, Software Design, Operating/Software/Computer Systems

## Technical Skills

- **Languages:** Python, Java, JavaScript, PHP, HTML, CSS, SQL, Bash, C
- **Frameworks & Technologies:** Node.js, MySQL, Git, Angular, React, XAMPP, Vim

## Work Experience

### Research Institute of the McGill University Health Centre (RI-MUHC)

**Jun 2025 - Sep 2025**

*Web developer Intern*

*Montreal, Canada*

- Resolved critical bugs in Genedig's PHP/JavaScript codebase, boosting reliability and cutting downtime.
- Built a local XAMPP/MySQL setup to streamline onboarding and speed up troubleshooting.
- Presented a live demo

## Personal Projects

### DNA Sequence Binding Analysis of Transcription Factors using ChiP-seq Data

**2024 - 2025**

<https://github.com/GatlatJack>

*McGill University*

*Montreal, Canada*

- Gained experience in motif recognition, data interpretation from experimental outputs, and understanding protein-DNA interactions central to gene regulation.

### Medical Diagnostic Support System using K-Nearest Neighbors (KNN) | <https://github.com/GatlatJack>

**2024 - 2025**

*McGill University*

*Montreal, Canada*

- Developed a Python program to assist in diagnosing patients by comparing their symptoms to a database of past cases

### Springboard.io | MDN Hackathon Finalist | [springboard-io.vercel.app](https://springboard-io.vercel.app)

**2026 - Apr 2026**

*Boundary AI X McGill Data Network (MDN)*

*Montreal, Canada*

- **Finalist (Top 5 of 16 teams)** at the **McGill Data Network Hackathon** for an end-to-end "Agentic Onboarding" platform
- **Developed Agentic Workflows** using **Next.js 16**, **React 19**, and **Vercel AI SDK (Gemini)** to automate access provisioning and personalized intro emails
- **Architected RAG Systems** to provide new hires with instant, context-aware answers from internal company documentation.
- **Engineered a Smart Buddy Matching** engine using AI to pair hires with mentors based on departmental data and project history

## Extracurricular

### Resilience Montreal

**May 2025 - Present**

*Volunteer*

- I volunteer in preparing and serving meals, organize and distribute clothing/hygiene products while keeping the environment clean and safe.

### National Society of Black Engineers McGill

**Feb 2025**

*Key Club Membership*

### World University of Canada (WUSC) SRP

## Academic Awards

- Windle International/ Kenya to study at Butula Boys High (2019), WUSC-SRP Scholarship to study at McGill University 2024