GATLAT DENG BUM

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SUMMARY

Computer Science undergraduate at McGill University seeking paid Software Engineering or Technical Intern roles. Experienced in building, debugging, and refactoring production research web applications, with strong foundations in Python, Java, and JavaScript. Demonstrated resilience, adaptability, and ability to deliver under constrained and high-responsibility environments.

EDUCATION

McGill University **May 2028**

B.Sc., Computer Science & Psychology

- **Achievements:** World University Service of Canada (WUSC–SRP) Scholarship (2024)
- **Coursework:** Object-Oriented Programming, Software Design, Web Development, Operating Systems, Computer Systems, Data Structures, Calculus

TECHNICAL SKILLS

- **Languages**: Python, Java, JavaScript, PHP, SQL, HTML, CSS, Bash
- **Frameworks & Tools**: Node.js, React, Angular, MySQL, Git, XAMPP
- **Concepts**: Data Structures & Algorithms, Debugging, Software Design, Database Systems, Agile Development

WORK EXPERIENCE

International Brain Research Organization (IBRO) - Placement at RI-MUHC **May 2025 - Sep 2025**

Intern Developer *Canada*

- Refactored and debugged a production research web application, resolving critical bugs and improving UI usability and accessibility
- Optimized algorithmic workflows, reducing runtime by approximately 27% and improving scalability for large datasets
- Developed automated validation and testing workflows achieving ~98% accuracy, improving reliability and reproducibility
- Collaborated in an Agile research environment through code reviews, benchmarking, and incremental feature development
- Worked under supervision of Dr. Brian Chen on the GeneDig web application

PROJECTS

Medical Diagnostic Support System

- Built a diagnostic recommendation tool using K-Nearest Neighbors (KNN)
- Implemented data preprocessing pipelines and optimized similarity comparisons

DNA Sequence Binding Analysis (ChIP-seq)

- Analyzed biological datasets to identify DNA–protein binding patterns
- Applied algorithmic analysis and scientific computing workflows to real-world data

LEADERSHIP & SERVICE

Resilience Montreal **May 2025 - Present**

Volunteer

- Supported community operations through meal preparation, supply distribution, and logistics

AWARDS

- WUSC–SRP Scholarship - McGill University (2024)
- Windle International / Kenya Scholarship (2019)