

## Mathieu D. Roy, B.Cosc

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### SUMMARY OF SKILLS

- Strong verbal and written communication skills in both of Canada's official languages
- Excellent interpersonal skills demonstrated through continuous interactions with internal and external collaborators, colleagues, and management at various levels
- Exceptional time management and organizational skills developed through project development and execution
- Advanced skills in SQL (PL/SQL (Oracle SQL Developer), T-SQL (SSMS), MySQL, phpMyAdmin)
- Knowledgeable on / trained in HTML, CSS, JavaScript, Python, C++, Java, Object-Oriented Programming, Git
- Understanding of TKinter (Tk interface for Python), Qt, Three.js, and OpenGL (C++ and Java)
- Experience with 3D modeling, Autodesk Inventor, Cura, ThinkerCAD, 3D printers
- Informed on two different project management methodologies including Agile and Waterfall structures
- Educated on Windows, Linux, and Mac operating systems developed through school and personal projects and proficient in MS Office applications (Word, Excel, PowerPoint, Outlook)

### EDUCATION

#### ***Bachelor of Computer Science Honors***

September 2016-December 2020

Major in Computer Science, Concentration in Communications, Certificate of Bilingualism

Laurentian University, Sudbury, Ontario

- Excelled in algebra(s), querying and various design mythologies such as digital, web or game.
- Relevant Courses: Digital Design, Theory of Computations, Data Management Systems etc.

### EMPLOYMENT EXPERIENCE

#### **Programmer/Analyst**

January 2021 - Present

*Conseil scolaire catholique du Nouvel Ontario — IT & Accountability Department*

- Contribute research, project assistance and strategic support for a team of programmers working with various databases. Working initially with the Trillium Student Information Management System database (Oracle PL/SQL), followed by the Aspen Student Information System (Microsoft T-SQL, Oracle PL/SQL).
- Tasks related to the Trillium database include collecting and analyzing data sourced from legacy queries that are now deprecated. This involves information aggregation to be able to research related data points in Aspen while verifying that any user input errors are corrected when possible and that new records are inputted to reflect accurate accounts.
- Relating to the Aspen database, daily undertakings include researching and studying tables to find the location of the required data. In the case of missing data or variations in information, providing constructive feedback for lacking resources and offering corrective solutions to ensure that the information gets properly communicated to end users. When data is accurate, authoring optimized queries to fetch the necessary information and correct web pages to properly display the indented material.

- To ensure the proper conversion between databases, ensuring edits to existing procedures are in place to enhance staff experience and understanding information or to provide outside contractors (i.e., Public Health, School Bus Consortium, Ministry of Education) with the necessary requirements. This is done by writing factual validation scripts and QA testing and by comparing past and new code and results.
- When modifications to workflows are asked by internal and external stakeholders, updating and upgrading the code base to satisfy requirements and collect better and more accurate input and statistics is imperative.
- Frequently asked to ensure that the tools (websites and portals) used by staff, parents and students conform to both in-house and government standards, which include, but are not limited to many COVID-19 related issues.

### **Teaching Assistant (TA)**

September 2020-December 2020

*Laurentian University – Dr. Ralph Meyer*

- Provided feedback, corrections, and next steps to C++ assignments and lab work from second year students by reviewing and examining their code while providing insight on where their work lacked functionality or what caused logical and compilation issues.
- Attended all lab sessions and helped students understand C++ and Object-Oriented Programming fundamentals by adding to the lecture content to ensure clarity on diverse topics.
- Provided availability multiple hours a week for assisting students with any inquiries or concerns they had regarding their code or any course related content.
- Assisted with reviewing submissions with similar code to rule out any possibility of plagiarism and to address any intellectual property theft.

### **Applications Developer – Summer Placement**

May 2019-August 2019

*SHYFTinc/BESTECH –Research and Development*

- Provided design and technical knowledge to designers, engineers, and management at various levels for prototypes and existing products relating to electric vehicles, wireless communication, and computer vision such as LiDAR, Radar, camera input, GPS and radio frequencies.
- Tasked with creating a prototype product with the intended purpose of providing object recognition using image processing to current stakeholders. Tasks included building both physical and digital components of the project while taking input from experience designers and developers.
- Designed and wrote, using Python, the user interface and the prototype's control system used in automating external components such as an Arduino board, a stepper motor, cameras, and LED lights. Absorbed feedback from various contributors to improve overall product quality and efficiency.
- Undertook drawing, using Autodesk Inventor, 3D models required for various projects. Measured, 3D printed tested, and re-worked tools and parts to ensure optimal functionality, high build quality and durability and rapid production and reproducibility all while meeting finished product requirements and deliverable criteria.

### **Data Clerk (SP3)**

October 2018-May 2019 and October 2019 – April 2020

*Canada Revenue Agency-T1/T3 specialty Services*

- Updated taxpayers personal and financial information while paying attention to details and discrepancies.
- Wrote different types of letters to residents informing them of the status of their accounts or updating them on the completion of their quests.

- In special cases, called taxpayers before making modifications to their account to ensure safety and integrity of their data.
- Kept personal information confidential such as social insurance number, last known address, date of birth and spouse names.

## **VOLUNTEER EXPERIENCE**

### **Leadership Camp Counselor**

September 2012 – June 2016

- Camp counselor of 7 leadership camps where students of the Conseil scolaire catholique du Nouvel Ontario participate to refine and learn new leadership skills.
- Used a variety of techniques to convey messages related to Covey's 7 habits of an effective person, team building, interpersonal communication, and conflict resolution.