YUVI BHATOOLAUL

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PROFILE

Prospective 3rd-year Computer Science student at the University of Toronto seeking a Winter 2026 internship at RBC. Strong foundation in software development, algorithms, data structures, and design patterns, with hands-on project experience in Java, Python, C and SQLite. Eager to tackle challenging problems, learn collaboratively, and apply academic knowledge to develop and support scalable applications for RBC's Technology and Data teams. Bilingual (French & English).

SKILLS SUMMARY

Languages: Python, Java, C, RISC-V Assembly
Frameworks & Tools: JavaFX, Git, Scrum
Databases: SQLite

PROJECTS

Custom Bash Shell *January, 2025*

Skills: C, Unix System Calls, Process Management, I/O Redirection, Pipes, Signal Handling, Memory Management, Git

- Engineered a Unix-like shell in C with support for command execution, background/foreground processes, and robust error handling.
- Implemented advanced features including I/O redirection, multi-stage piping, and efficient command parsing.
- Integrated low-level signal handling (`SIGINT`, `SIGCHLD`) and optimized memory allocation to ensure reliability and performance.
- Leveraged Git for version control and applied systematic debugging with `gdb` and `valgrind`.

Paint *November, 2024*

Skills: Java, JavaFX, RegEx, FSMs, AI Integration, Git, Scrum, Object-Oriented (OO) Design

- Developed a full-featured Java paint application with a 4-member team, improving collaborative project efficiency through Scrum methodology and Git.
- Integrated AI(Ollama)-based image generation and RegEx/FSM-based parsing to automate user-created drawing processing.
- Applied OO Design principles by implementing multiple design patterns (MVC, Command, Factory, Strategy, Observer). Enabled modular architecture to facilitate future feature additions/maintenance and reduce code redundancy.

File Visualizer *March, 2024*

Skills: Python, Recursion, Data Structures, Data Processing, Automation, Visualization

- Created a recursive tool to visualize file system hierarchies using tree data structures, improving data inspection speed for users.
- Converted CSV datasets into Python dictionaries to dynamically drive visual representation.

EDUCATION

University of Toronto (Mississauga Campus) — Mississauga, ON *Expected Jun. 2028*

Specialist in Computer Science

- **GPA:** 3.46/4.00
- **Honours & Awards:** Dean's List Scholar (2024), Entrance Award of Distinction

École Secondaire Jeunes sans Frontières — Brampton, ON *Jun. 2023*

Ontario Secondary School Diploma and International Baccalaureate (IB) Certificates

- **Certificates & Awards:** IB Higher Level (HL) Math, Standard Level (SL) Physics & Chemistry, Euclid Math Contest School Champion

LEADERSHIP & EXTRACURRICULAR

University of Ottawa — Ottawa, ON

Telfer Internal Case Competition *Nov. 2022*

- Led a 3-member team to the finals of a timed business case competition by analyzing complex business problems and presenting innovative solutions.