

Albin Peter Joy

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EDUCATION

University of Toronto Mississauga

(HBS) Honors Bachelor of Science in Computer Science, Minor in Math and Statistics

Mississauga, ON

Sep 2023 - Expected April 2028

- Relevant Coursework: Software Design, Theory of Computation, Computer Organization, Operating Systems, Data Structures & Analysis, Software Tools & Systems Programming
- UoT Co-op Internship Program & Member of UoT AI Club

KEY SKILLS

Languages: Java, Python, C, C# (Windows Forms), Assembly (RISC-V), JavaScript, HTML/CSS, Bash

Frameworks: React (Web Development), Node.js, PyGame, Windows Forms (Desktop Applications)

IDEs & Tools: Git, PyCharm, Visual Studio, IntelliJ, Vim (Text Editor), CPULator (RISC-V Emulator)

Knowledge of Microsoft office (Word, Excel, PowerPoint, Outlook) and Adobe Applications.

EXPERIENCE

Software Development

November 2024

Sky's the Limit Hackathon - GO Open Data, City of Mississauga

Mississauga, ON

- Collaborated with a team to develop a model to analyze 10 years of historical rain data in Mississauga and optimize blue roof systems.
- Integrated React front-end with a Java and Flask back-end and design using Figma.
- Won 6th place out of over 24 teams for an innovative approach in optimizing rainwater management and supporting urban sustainability.

Web Development

July 2024

Hikmah Hacks - Hackathon

Brampton, ON

- Collaborated with a partner to design and develop a dynamic donation page using React and Java, enabling 300+ community contributions.
- Achieved 3rd place overall for delivering a sleek, user-friendly website design.

PROJECTS

EGG2O - Hydration Tracking Application | React, Node.js, Express, MongoDB, JavaScript, HTML/CSS

Aug. 2025

- Engineered a full-stack gamified hydration tracking application allowing users to create accounts, log water intake, and unlock egg-hatching animations upon meeting daily goals.
- Built secure authentication and session management to provide personalized user experiences and persistent progress tracking.
- Developed responsive and interactive front-end using React components and CSS transitions, delivering real-time hydration progress visualization.

Paint Application | Java, Git, JavaFX

Oct. 2024

- Collaborated with a team using Agile methodologies to develop a paint application similar to Microsoft Paint, enabling users to draw, edit, and highlight over 10 different drawing tools and shapes.
- Followed Scrum practices by conducting sprint planning, participating in daily stand-ups, and holding retrospectives to ensure effective communication and task management.
- Utilized Git for version control, coordinated tasks through pull requests, code reviews, and issue tracking, and incorporated efficient design patterns and architecture for smooth development.

Tree-Map Visualizer | Python, OOP, Tree Data Structure, JSON

Aug. 2024

- Developed an interactive treemap visualization tool to model hierarchical data such as file systems and research papers.
- Implemented recursive algorithms to calculate data sizes and handle dynamic node expansion reducing processing time by over 40%.
- Applied real-time data visualization, including features for file deletion, expansion and movement across directories.

Customer Call Map Visualizer | Python, JSON

Jan. 2024

- Developed a system to analyze customer calls set in Toronto, visualizing call activity on a real-time map.
- Included advanced filtering, allowing operators to query and display calls by customer or date.
- Generated detailed billing reports for customers, ensuring accurate monthly charges based on contract type (Month-to-Month, Term, Prepaid).
- Devised Python Unit Testing, covering almost 99% of test cases.