Taha Hashim

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Education

University of Toronto Expected 2026

Honours in Bachelors of Science (H.Bsc.), Computer Science and Mathematics + PEY Co-op

- Cumulative GPA: **3.82/4.00**
- Dean's List Scholar (2023)
- University of Toronto **$4000** Entrance Scholarship (Sep. 2022)
  - Achieved a **95.3%** overall entrance average

Relevant Coursework: Data Structures & Algorithms, Software Tools & Systems Programming, Software Design & Development in Java, Object-Oriented Programming, Python Programming, Theory of Computation, Probability and Statistical Modeling, Linear Algebra, Calculus I, Calculus II, Calculus of Several Variables, Mathematical Proofs

Technical Skills

Languages: Python, Java, C/C++, C#, SQL, JavaScript, Bash/Shell Scripting, HTML/CSS
Frameworks: MS SQL, ASP.NET, JUnit, Swing, JavaFX, Pytest, JQuery, Pandas, Bootstrap, Flask
Developer Tools: Git, Unix/Linux, VS Code, Visual Studio, PyCharm, IntelliJ, Eclipse, Jupyter Notebooks

Experience

Software Engineer Intern May. 2023 – Aug. 2023

Akhny Solutions Inc. *Remote*

- Crafted data models, developed algorithms, and built a user-friendly online store with secure payment processing, comprehensive product catalog, advanced search functionality, and an integrated customer feedback system
- Leveraged **HTML**, **CSS**, and **JavaScript** for a responsive and dynamic frontend. Utilized **ASP.Net**, **C#**, and **SQL Server** to manage the backend, ensuring efficient data management and implementing dynamic features
- Enhanced performance by reducing load time by **30%** through responsive design with **Bootstrap** and **jQuery**

Projects

Escape Room Game | *Java, JavaFX, JUnit, Git*

- Led the collaborative creation of an inclusive **Java** escape room game with unique themes, intricate puzzles, and storytelling, prioritizing accessibility features such as audio descriptions, visual clues, and motor control
- Utilized **JavaFX** for a responsive UI, enabling users to navigate and engage with interactive escape room elements
- Collaborated in a team of four making use of the **Agile Development Cycle**, **Daily Scrums**, and **Git Flow**
- Implemented the **command**, **singleton**, **strategy**, and **MVC** design patterns for an extensible software design
- Executed comprehensive unit tests using the **JUnit** Framework, reducing debugging time by **60%**

Online Grocery Store | *C#, HTML, CSS, JavaScript, ASP.NET, MS SQL, Git*

- Engineered a comprehensive online grocery store full-stack web application, providing administrators with versatile management capabilities, while simultaneously offering customers an array of user-friendly features
- Designed a user-friendly front-end with **HTML**, **CSS**, and **JavaScript** for ease of use and accessibility
- Developed a robust and scalable back-end using **C#**, **ASP.NET**, and **MS SQL**, prioritizing performance
- Integrated **15+** features to improve application functionality and achieved a **30%** reduction in load times

File Compressor & Decompressor | *Python, Pytest*

- Created a powerful tool that expertly compresses and encodes any file into 8-digit bits using the **Huffman Algorithm** and Binary Tree, enabling lossless compression, efficient data recovery, and versatile applications
- Designed recursive Huffman trees for a memory-efficient compression algorithm, streamlining tree traversal, symbol encoding, and decoding processes, improving overall performance and file compression efficiency
- Optimized coding significantly accelerated decompression for larger files, yielding a **91%** run-time improvement
- Executed **200+** test cases using the **PyTest** Framework, accelerating debugging efficiency by **50%**

Unix Shell | *C, Unix/Linux, Bash/Shell Scripting, Git*

- Developed a **Unix** shell in **C**, supporting command execution, process management, I/O redirection, and piping
- Implemented built-in and user-defined commands, ensuring compatibility across **Unix/Linux** distributions
- Utilized system calls and advanced process management techniques for efficient execution and resource utilization
- Optimized shell performance and resource utilization, resulting in a **25%** improvement in system efficiency