

Zoha Qamar

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EDUCATION

University of Toronto

2025

Honours Bachelor of Science (HBSec): Computer Science & Statistics

- **Relevant Courses:** Software Design, Theory of Computation, Data Structures and Analysis, Artificial Intelligence, Machine Learning, Databases, Probability and Statistics II, Methods of Data Analysis, Human-Computer Interaction and Communication, Fundamentals of User Interface, UX Design - Prototyping and Evaluation

EXPERIENCE

Application Programmer Intern

May 2023 - August 2024

Ministry of Education

Toronto, ON

- Developed and tested applications in an **Agile development environment**, debugging and troubleshooting to ensure reliability and functionality.
- Automated accessibility compliance testing by integrating tools like **WAVE**, **JAWS**, and **NVDA**, ensuring adherence to **WCAG 2.0 guidelines**.
- Authored **10+ detailed technical documents** for workflows and testing protocols, streamlining onboarding and improving knowledge transfer.
- Logged and tracked **40+ defects** using ALM software, collaborating with developers to resolve **95%** of issues pre-deployment and reducing defect resolution time.

Director of Social Media

July 2022 - April 2023

Women in Science and Computing (WiSC)

Mississauga, ON

- Increased social media engagement by **30%** through a strategic content calendar for platforms including Instagram, LinkedIn, and Discord.
- Collaborated with the marketing and graphic design teams to maintain brand consistency and crafted a robust community engagement strategy.

PROJECTS

Personal Portfolio Website with AI Chatbot | *React, Tailwind CSS, React Router, GitHub Pages, Vercel, OpenAI API*

- Designed and developed an interactive, responsive website with a custom pixel-art desk UI linking to GitHub, LinkedIn, resume pdf, and custom pages, showcasing frontend development, routing, responsive design, and deployment
- Integrated an AI-powered chatbot using the OpenAI API and a Node.js serverless backend hosted on Vercel to answer questions about my background and skills

k-Nearest Neighbors MNIST Classifier | *Python, NumPy, Matplotlib, Pillow*

- Implemented a k-NN classifier for a MNIST subset, including data loading, image vectorization, distance computation, prediction, data normalization and accuracy evaluation
- Visualized validation and test accuracies using Matplotlib plots to select optimal hyperparameters and improve model performance

Heart Disease Prediction using Decision Trees (NHANES Dataset) | *Python, scikit-learn, Pandas, Matplotlib*

- Built and tuned Decision Tree models on the NHANES dataset, demonstrating trade-offs between underfitting, overfitting, and generalization
- Conducted Exploratory Data Analysis (EDA) and feature engineering, improving model interpretability and performance through optimized hyperparameters

Three Musketeers | *Java, JavaFX, JUnit testing*

- GUI board game using the MVC software design pattern and core OOP principles: abstraction, encapsulation, inheritance, and polymorphism

Meepo is You | *Python, Pygame, Pytest*

- User-controlled GUI game using Object-Oriented programming, abstract data types, encapsulation, recursion

TECHNICAL SKILLS

Languages: Python, Java, C, R, Bash, Shell, SQL, PostgreSQL, VBScript, Assembly, JavaScript

Web & UI: HTML, CSS, UI/UX Design, Adobe XD, Figma, React

Frameworks & Libraries: Pytest, JUnit, JavaFX, NumPy, Pandas, Matplotlib, Scikit-learn, RESTful APIs

Dev Tools: Git, GitHub, VS Code, PyCharm, Eclipse, Jira, ALM, Linux

Interests: Software Development, Machine Learning, Artificial Intelligence