Nadeem Hassan

Nadeem.h.shehata@gmail.com | (519) 465 1494 | 651 Interlaken Dr, N2T2Y5, Waterloo ON

linkedin | GitHub

EDUCATION

Wilfrid Laurier University   **Waterloo, Ontario**
B.S. in Data Science   *Expected Graduation, May 2027*
- **Related Coursework:** Data Structures I & II , Object-oriented Programming, SQL Database, Artificial Intelligence (Heuristics), Data Analysis, Calculus, Linear Algebra, Discrete Structures

SKILLS

Programming: Java, Python, Java, R (Markdown), SQL, C, numpy/pandas, HTML/CSS
Tools: Jupyter notebook, Tableau, Eclipse, VS Code, R_Studio, MySQL WorkBench, Linux

EXPERIENCE

Code Tutor Sensei - Code Ninjas, Waterloo   *Jul 2025 – Present*
- Taught Scratch, Java, Python, and Unity to ages 6–15, leading project-based game/app/website builds while collaborating to refine curriculum and maintain an engaging, tech-focused learning environment.

Contact: Senator Executive: Steven Tran, steven.tran@codeninjas.com, (538),333,2633

Majorel - Database Moderator   *May 2023 - Aug 2023*
- Evaluated online content, enhanced web service quality, and *analyzed* data for policy compliance.

Contact: Supervisor: Bilal Naeemuddin, (548)-577-4191

University of Waterloo, Computing Facility - IT Student   *Jan 2022 - June 2022*
- Proficiency in HTML, CSS, Assisted with software/hardware, managed databases, and contributed to research

Contact: Manager: Lawrence Folland, lawrence.folland@uwaterloo.ca , (519)-885-4567

PROJECTS (GitHub)

Artificial Intelligence Search — Sudoku Solver (CSP),   N-Queens Heuristic Search - (C programming language)
- **Sudoku Solver,** Constraint Satisfaction using **backtracking + constraints/propagation**
- **N-Queens heuristic search solver** (conflict-based scoring + iterative improvement) with clean input/output and reusable search utilities.

Advanced Data Structures and Algorithms — (Python , Java, and C)
- Implemented fundamental ADTs (**Linked List, Stack, Queue, Deque, Hash Set, BST, Priority Queue**)
- **Trees: AVL** / **BST / Heap** operations, **stacks/queues**, **Hashing**: **hash tables**, **Graphs: Adjacency Matrix**, **Adjacency List**
- Classic problems including **Dijkstra shortest path** and **Prim MST**, algorithm-focused problem sets
- Java projects demonstrating **inheritance/polymorphism, encapsulation, interfaces, exceptions**, and **Abstract** class design; built **GUI**

Data Analytics Workflow — Workflows / EDA / Visualization (R Markdown)
- **Data import** using **tidyverse, openxlsx, and Excel**, cleaning/wrangling, exploratory data analysis, and ggplot visualizations **(including faceting) - Built**, T**rained** and **Tested model**, compared models via workflow_set, tuned Random Forest and **reported performance** with diagnostic plots **(predicted vs observed + metric comparison)**

Relational Database Design — Design / Normalization / Transactions (SQL)
- Designed relational schemas using **normalization principles**, wrote SQL scripts with **joins, aggregation, views**, and **indexing**/ efficiency practices; worked through **transaction and database concepts** alongside structured query

CERTIFICATION

Google Advanced Data Analytics Professional Certificate (Advanced level)
- *Skills:* **Data Ethics,** Descriptive Statistics, **Tableau Software**, **Regression Analysis**, Logistic Regression, **Data Visualization**, Sampling (Statistics), **Python Programming** (pandas, numpy, seaborn, matplotlib.pyplot), Statistical Hypothesis Testing , **Model Evaluation**, Data Analysis, **Exploratory Data Analysis**, statistical Analysis, **Machine Learning**, **Object Oriented Programming (OOP)**