# Diyar Pour Yousef

# Kitchener ON, Canada

github.com/divar2004

#### Education

# Wilfrid Laurier University

Bachelor of Science in Computer Science

Sep. 2022 - May 2026 Kitchener, ON

#### Relevant Coursework

- Data Structures
- Calculus
- Algorithms Analysis
- Database Systems
- Discrete Structures
- Object Oriented
- Programming • Linear Algebra
- Logic and Computation
- Software Engineering
- Operating Systems
- Computer Networks

# Projects

# Sudoku Solver | Python, VSCode, HTML, CSS,

October 2023

- Developed an efficient backtracking algorithm in Python to solve Sudoku puzzles.
- Implemented a recursive function to systematically fill in blank cells, ensuring each row, column, and 3x3 grid adheres to Sudoku rules.
- Optimized the algorithm to reduce solving time by reducing unnecessary iterations and backtracking steps.
- Utilized Python to create a seamless user experience.

### Personal Portfolio Site | JavaScript, HTML, CSS, Github, Visual Studio Code

February 2024

- Implemented a visually captivating and fully responsive personal portfolio website with adherence to SOLID principles, employing HTML, CSS, and JavaScript.
- Utilized advanced version control through GitHub, fostering collaborative development and streamlined code management.
- Showcased proficiency in front-end technologies, ensuring a dynamic and user-centric interface through strategic application of design principles.

### Transaction Management GUI | Java, Eclipse, JavaFX

March 2024

- Designed a sample banking transaction system using Java to simulate the common functions of using a bank account.
- Used JavaFX to create a GUI that supports actions such as creating an account, deposit, withdraw, list all acounts, etc.
- Implemented object-oriented programming practices such as inheritance to create different account types and databases.

## Thrive - HawkHacks Hackathon | Python, VSCode, HTML, CSS, Javascript

May 2024

- Thrive is an advanced financial platform with market analysis along with AI tools, boosting efficiency by 40%...
- Integrated real-time financial data feeds, enhancing decision-making and boosting investment accuracy by 25%.
- Provides robust security measures for investors, including those seeking intergenerational wealth transfer.
- Solved real-time info delivery by user input, showing market screeners for ETFs, mutual funds, and stocks.
- Strengthened data security with protocols, reducing breaches and ensuring protection by 20%.
- Enhanced financial literacy with an AI assistant, improving understanding of complex terms by 30%.
- Planned and QA-tested encryption to ensure confidentiality and meet security standards.

#### Adversarial Image Classification Defense using PyTorch | PyTorch, NumPy, Torchvision, Python September 2024

- Simulate an adversarial attack by adding noise that resembles features of another class to test the model's resilience.
- Developed a deep learning model using PyTorch to classify images from the CIFAR-10 dataset into 10 categories, including cats, dogs, and horses.
- Implemented a Convolutional Neural Network (CNN) architecture to achieve accurate image classification with a robust training pipeline.
- Enhanced model robustness by exploring adversarial defense strategies such as adversarial training to improve classification accuracy under attack.
- Applied the Fast Gradient Sign Method (FGSM) to generate adversarial noise and assess model performance on noisy data.

#### Technical Skills

Languages: Python, Java, C, HTML/CSS, JavaScript, SQL, React

Developer Tools: VS Code, AWS, Firebase, Canva, Notion, Figma, Github, Eclipse, Android Studio

Technologies/Frameworks: Pandas, AWS S3, Latex, Linux, Expo Go, SocketAPI, fullPage