Himasha Karunathilake

himashakaruna@gmail.com linkedin.com/in/himasha-karunathilake github.com/HimashaK

Education

McMaster University **Hamilton, ON**

B.A.Sc. in Computer Science Co-op *Sept. 2021 - Apr. 2025*

- **Relevant Coursework:** Data Structures & Algorithms, Databases, Programming in Python, Web Programming, Software Development, Probability, Automata and Computability, Development Basics (with UNIX-like systems), Information Security, Operating Systems, Principles of Programming Languages

McMaster University Continuing Education **Hamilton, ON**

Full-Stack Development/Data Science Program *May. 2023 - Present*

- **Relevant Coursework:** Website Development, Statistics for Data Science

Personal Projects

Personal Portfolio Website | ***HTML, CSS, JavaScript, VS Code*** **Sept. 2023 - Present**

- Developed a personal portfolio website utilizing HTML, CSS, and JavaScript, showcasing proficiency in front-end web development technologies.
- Ensured WCAG 2.0 AAA compliance, adhering to strict contrast ratio requirements and HTML accessibility standards for inclusive web design.
- Implemented responsive web design techniques, guaranteeing optimal readability and accessibility across smaller screen sizes and devices.

Linear Regression Analysis Project | ***R, RStudio*** **Nov. 2023**

- Conducted a comprehensive linear regression analysis to explore the relationship between socio-economic factors and death rate in small American cities.
- Skillfully applied multiple linear regression techniques to analyze the impact of independent variables like doctor availability, hospital availability, income, and population density on the dependent variable, death rate.
- Ensured adherence to key linear regression assumptions including independence of observations, normality, linearity, and homoscedasticity, verifying the robustness and reliability of the analysis.
- Created insightful visualizations to represent the linear regression model, particularly illustrating the relationship between income, population density, and death rate, showcasing skills in data visualization and interpretation.

Connect4 using OOP | ***Java*** **Dec. 2022**

- Constructed a Connect4 game in Java using Object-Oriented Programming principles, focusing on encapsulation, inheritance, and polymorphism.
- Implemented a HumanPlayer and an AIPlayer class that uses decision-making methods for executing winning strategies and blocking opponent's moves.
- Demonstrated secure coding practices by implementing private access modifiers and data structures, ensuring robust encapsulation.

Experience

Canadian National Exhibition (CNE) **Toronto, ON**

Exhibition Attendant *Aug. 2021 - Sept. 2021 (Seasonal Position)*

- Employed efficient time management strategies to handle multiple tasks simultaneously, crucial for maintaining high productivity in fast-paced environments.
- Actively engaged with guests and co-workers, showcasing strong teamwork, interpersonal, and communication skills.

Game Development Club (McMaster University) **Hamilton, ON**

Member *Sept. 2023 - Present*

- Developed a foundational understanding of platformer game mechanics while using GDScript, enhancing game design and user experience skills.
- Gained experience in narrative design, learning how to craft compelling stories and integrate them into game play

Technical Skills

Languages*: Python, Java, C#, SQL, C, C++, HTML, CSS, JavaScript, R, LaTeX, Haskell, Prolog, VB.NET*
Developer Tools*: VS Code, LaTex, GitHub, DBeaver, NetBeans, Overleaf, Eclipse, RStudio, MS Office*
Academic Knowledge:
Software Development (SDLC) Models: *Agile (Scrum) Waterfall, Spiral*
OOP Principles: *Encapsulation, Separation of Concerns, Modularity, Information Hiding, Inheritance, Polymorphism*
Design Patterns: *Decorator, Factory, Strategy, Observer, Singleton, Adapter, Proxy, Command*