Michael Giovannini

TECHNICAL SKILLS

Languages: C, Java, Python, HTML, CSS, JavaScript, MySQL, Assembly
Operating Systems: Windows, MacOS, Linux
Development Tools: Git, GitLab, GitHub, Maven, VS Code, Microsoft Office

PERSONAL PROJECTS

The Ancient Kings Rogue-lite Game
- Developed a turn-based rogue-lite game in **Python** with procedural dungeon generation
- Designed an engine module to handle game loops, key handling and rendering
- Optimized procedural map generation and pathfinding calculations using **NumPy** for efficient operations and performance improvements.

Scriptor Text Editor
- Developed a lightweight text editor in **C** for terminal-based usage, supporting basic editing functions
- Designed an intuitive user interface using ANSI escape sequences for cursor movement, text coloring, and screen clearing
- Created robust input handling system to support keyboard shortcuts for efficient navigation.
- Integrated file IO operations, supporting opening and saving files, with safe file saving and overwrite protection, reducing the risk of accidental data loss

EDUCATION

Bachelor of Computing, Computer Science (Co-op)   Sept. 2023 - Present
University of Guelph | Guelph, ON   GPA: 3.8/4.0

Relevant Coursework: Object-Oriented Programming, Data Structures, Web Design and Development, Discrete Structures in Computing, Intermediate Programming, Structures and Applications of Microcomputing

Academic Projects
- Boudler.com: Developed an interactive website using HTML, CSS and JavaScript that teaches people about bouldering
- Zoo Animal Information System: Developed a zoo information system in **C** that generated statistics features about various animals
- Portfolio Management System: Developed a Java-based investment portfolio management system, applying object-oriented programming principles for modular and scalable architecture.

- Member of the Google Developer Student Club (GDSC)

WORK EXPERIENCE

Groundskeeper, Town of Grimsby   May 2024 – Aug. 2024
- Developed strong teamwork skills by collaborating with a partner to plan, and execute required tasks effectively to maintain landscape appearances
- Assessed and resolved on-site challenges such as unexpected weather conditions or equipment issues.