Gabriel Folk

Software Developer

Objective

To advance my skills as a software developer by making useful tools while contributing to the growth and success of a creative and innovative company

Transferrable Skills

Web-Based Development

- Intuitive and friendly UIs
- Relational database design
- AJAX and JSON
- MySQL, PHP, JavaScript, HTML, CSS

Console Development

- Clean, well-documented, modular code
- Object-Oriented Programming
- C++, Python, R, Java

Software Tools

- Visual Studio / VS Code
- NetBeans
- RStudio
- cPanel
- Anaconda / Conda
- Linux OS / terminal

Interpersonal

- Bilingual (English and French)
- Coordinated group projects to success

Interests

- Playing trumpet in the Prairie Winds Community Band
- Member of the Campion Grads RFC
- Training to compete in the Queen City Marathon

Work Experience

Freelance Developer

Regina, Saskatchewan • 2022 - Current

- Connected with clients to discuss and draw out the vision for the project
- Implemented the desired functional requirements and specific components
- Designed and built modern and engaging custom user interfaces

Landscape Lead

Cherry Lane Landscaping • Regina, Saskatchewan • 2018 - 2022

- Independently solved technical problems and implemented solutions
- Coordinated individuals based on their strengths to complete projects on time
- Communicated project plans between management and crew

Education

Bachelor of Science • 2013–2018 • University of Regina

- Major in Biology
- Peter Ventre Scholarship
- Academic Silver Scholarship
- Competed in multiple Canadian University Rugby Championships

Diploma in Computer Science • 2018-2020 • University of Regina

- Gained an understanding of advanced data structures, algorithm analysis, and software engineering methodologies
- Software Development Capstone Project
  - Worked with a team to develop a full-stack multi-user Kanban board web application
  - Assembled multiple UML diagrams
  - Coordinated as a group to allocate different responsibilities based on individual strengths

References

To be provided upon request

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Projects

Turing Machine

- Created a C++ program that simulates a Turing machine
- The user can write their own list of commands to program the virtual Turing machine
- Used pointers to implement a doubly linked list

Search and Rescue

- Built a Python program that simulates a search and rescue effort and informs the player of the best options
- Used the *random* module to generate random triangular distribution values to simulate search effectiveness, then applied Bayes' Rule to update the probabilities of the sailor being found within each of the search areas
- Applied the *OpenCV* and *NumPy* modules to colour the map image to show the search effectiveness within each search area

Wellness Wheel Clinic

- Designed and developed a fully custom front-end website for Wellness Wheel Inc
- Connected with the company's business manager to determine the requirements of the website and to discuss the vision for the project
- "Gabriel has done an incredible job in building the website! The website allows us to share and advertise the work we do at Wellness Wheel with health care professionals and community members." – Dr. Stuart Skinner.

What's the Capital

- Created a fun full-stack web application that tests the user's knowledge of countries and capital cities
- Integrated the *Google Static Map API* to add a visual experience

Trackster

- Built a full-stack web application to track workout exercise progress
- Designed an easy-to-follow, colour-coordinated user interface and assembled an Entity Relationship Diagram to create a MySQL database
- Incorporated the *Chart.js* framework to create line charts so that users can see their fitness progress graphically

Face Recognition

- Built a Python program that detects and identifies human faces from the user's video camera feed
- Imported the *os* module to access absolute and relative file paths and to navigate through the machine's file storage system
- Worked with the *OpenCV* and *NumPy* modules to analyze and modify images
    - Captured still images from a video feed to create a training folder with multiple images of a user's face
    - Used the Haar Cascade classifier to detect human faces
    - Analyzed the face image with the Local Binary Pattern Histogram algorithm to recognize the face
    - Modified the video display by outlining the detected faces and printing the name of the identified faces
    - Option to modify the video display by detecting either human or cat faces, then swapping their positions

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