Feras Aljoudi

Portfolio | Virtual Resume
Email: feras.aljoudi@gmail.com | LinkedIn | GitHub
Address: Regina, SK, Canada

Experience

Co-op, Bioinformatic Programmer
Agriculture&Agri Food Canada

Sep. 2022 - Apr. 2023
Remote

- Comprehensive documentation of software tools and workflows.
- Generating dot plots using Gnuplot software and Mummer software in Linux.
- Genetic variant identification using C++, Java, and Python languages.
- Advanced Data Analysis through Sequence Comparison.
- Impact on public health through Bioinformatics.

Co-op, Electrical Engineering Intern
SaskPower

Jan. 2022 - Aug. 2022
Regina, SK

- Preparing contract's documents between SaskPower and the contractors.
- Contacting vendors and purchasing the required equipment through emails.
- Preparing Excel sheets and PowerPoint presentations in Microsoft 365.
- Identifying the scope of work with the contractor while visiting the field.
- Uninstalling relays and switches and salvaging them in the proper containers.

Store Manager
YM Inc Urban Planet

Nov. 2018 - Dec. 2022
Regina, SK

- Managing schedules and making sure the store needs are covered.
- Making monthly sales targets.
- Analyzing the business based on the top sellers in the store and the company.
- Assisting customers and making sure they were satisfied.
- Managing the wage cost and performing partnership with other banners.

Project Coordinator
ZGEMI

Jan. 2018 - May 2018
Regina, SK

- Supervising the laborers and making sure the tasks were getting completed.
- Measuring the area of the rooms and walls.
- Completing the final report for each room and reporting any uncompleted work.
- Recording and adding hours and wage through the Microsoft Office – Excel.

Skills

- **Programming**: C++, C, C#, Python, Java, HTML, CSS, React, Vue, JavaScript, PHP, TypeScript, ShellScript, ARM and MIPS Assembly, SQL, MySQL, Firebase, VHDL
- **Web development**: WordPress, Figma
- **Machine learning/AI**: TensorFlow, Keras, NumPy, Pandas, Matplotlib, MediaPipe, OpenCV
- **Modeling programs**: Implement the best solution based on the needs by Solid Edge
- **Other skills**: Management experience, computer experience, technical documentation, business analysis, vendor communication, team supervision, product management

Projects

IFS DriverAlert, AI/ML
Graduation Project

Apr. 2025

- Developed a real-time driver drowsiness detection system using Python, OpenCV, and MediaPipe, which was upgraded from an initial CNN model for broader feature detection.
- Enhanced the system to detect closed eyes, yawning, and looking away using real-time facial landmark tracking.
- Optimized the system for deployment on Raspberry Pi 5, ensuring efficient performance and low startup latency.
- Integrated hardware components including GPIO-connected switches, USB stereo speakers, and camera for complete system functionality.
- Designed a privacy-focused, fully offline solution that processes data in real-time without storing or transmitting user information.
- To view full details: Capstone

FIA-Local Service Finder

ENSE375 class

Jul. 2024

- Collaborated with a team to develop a secure service platform using Java (Spring Boot) for backend and React.js for frontend, enabling users to list, search, and manage services.
- Implemented user authentication and data management to ensure secure login, registration, and profile updates.
- Designed and integrated responsive user interfaces for seamless service discovery, focusing on usability and accessibility.
- Conducted comprehensive testing, including boundary value analysis and integration testing, to ensure system reliability and robust performance.
- To view full details: FIA-LocalServiceFinder

Top Languages Service

Personal

Jun. 2024

- Developed a web service providing API endpoints to generate visual language usage insights for GitHub users.
- Enabled customization options, including format, title color, and background color, for personalized output.
- Designed the service for public use, supporting data from both forked and original repositories for comprehensive analysis.
- To view full details: TopLanguages

STM32-Based Smart Parking Management System

ENEL351 class

Mar. 2024

- Engineered a smart parking solution using STM32 microcontroller, featuring real-time parking availability display, automated gate operation, and fire alarm.
- Incorporated servo motors and various sensors including pressure, infrared (IR), and gas sensors to manage parking operations.
- Programmed the entire system in embedded C with a modular design approach for easy maintenance and scalability.
- To view full details: AljoudiParkingSystem

Embedded Systems and Interactive Game Design

ENSE352 class

Nov. 2023

- Engineered a Simon Game using C with an STM32 Nucleo Board for hardware interfacing, featuring 10 levels of increasing difficulty, input handling, and visual feedback.
- Utilized classic "Cylon Eye Scanner" start sequence and level progress/failure indicators.
- Applied time constraints to user inputs for enhanced gameplay challenge and utilized an isolated resistor for LED current regulation.
- To view full details: SimonGame

FPGA-Based Digital Scheduling and Display System

ENEL384 class

Nov. 2023

- Developed a class scheduling digital circuit on a BASYS-3 FPGA board using VHDL in Vivado, featuring multiplexed display logic for rapid switching.
- Integrated LED indicators for class selection and weekly schedule display to enhance user experience.
- Demonstrated proficiency in digital system design and FPGA programming, showcasing practical application of hardware description languages.
- To view full details: ClassesSchedule

Education

University of Regina, Degree

Bachelor of Applied Science in Software Systems Engineering

Regina, SK

Sep. 2018 - Apr. 2025

Reference

Frank You

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