Feras Aljoudi

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

Experience

Co-op, Bioinformatic Programmer Sep. 2022 - Apr. 2023
Agriculture&Agri Food Canada *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 Jan. 2022 - Aug. 2022
SaskPower *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 Nov. 2018 - Dec. 2022
YM Inc Urban Planet *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 Jan. 2018 - May 2018
ZGEMI *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: TensorFlow, Keras, NumPy, Pandas, Matplotlib, OpenCV

Modeling programs: Implement the best solution based on the needs by Solid Edge

Other skills: Management experience, computer experience, computer experience, technical documentation, business analysis, vendor communication, team supervision, product management

Projects

IFS DriverAlert, Machine Learning Apr. 2025
Capstone

- Developed the system using a CNN model and OpenCV for real-time eye closure detection to prevent drowsy driving accidents.
- Implemented a cost-effective, offline solution using a Raspberry Pi 5, a camera, and a speaker for immediate audible alerts.
- Trained the ML model with TensorFlow/Lite, optimizing it for efficient performance on low-power devices.
- Designed a system that is compatible with diverse vehicle environments and lighting conditions.
- To view full details: Capstone

FIA-Local Service Finder Jul. 2024

ENSE375 class

- Collaborated with a team to develop a platform to help local businesses improve visibility by allowing users to list, search, and request services with a secure and intuitive interface.
- Implemented features across multiple MVP phases, including user authentication, review systems, and personalized service recommendations to enhance user experience.
- Designed a cost-effective, scalable solution with high reliability, supporting local economic growth.
- To view full details: FIA-LocalServiceFinder

Top Languages Service Jun. 2024

Personal

- 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 Mar. 2024

ENEL351 class

- Engineered a smart parking solution using STM32 microcontroller, featuring real-time parking availability display, automated gate operation, and fire alarm.
- Integrated various sensors including pressure, infrared, and gas sensors to manage parking operations efficiently.
- 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 Nov. 2023

ENSE352 class

- 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 Nov. 2023

ENEL384 class

- 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 Regina, SK

Bachelor of Applied Science in Software Systems Engineering *Sep. 2018 - Apr. 2025*

Reference

Nick Dietrick C: 1 (306) 789-0591

Manager for Construction Stations, SaskPower *ndietrick@saskpower.com*

Puneet Kaur C: 1 (639) 560-3413

Co-Manager, Urban Planet *deolpuneetkaur@gmail.com*