Julen Hoppenstedt Mandiola

✉️ julen_hopp@hotmail.com   📞 +52 961 117 3308   📍 Monterrey, México

🚀 julenhopp.com   🔗 linkedin.com/in/julenHopp   🐙 github.com/julenHopp

SKILLS

- C++ | JavaScript | HTML | CSS | Python | SQL | MATLAB | Git/GitHub | Object-Oriented | Algorithms | Data structures | Data analysis | Circuits
- Bilingual (Spanish and English) | Continuous Learning | Problem solving | Leadership | Teamwork | Communication | Attention to detail

PROJECTS

Automated Plant Care System
Tools & Technologies: JavaScript, SQL, C++, Circuit Design, Data Analysis
Developed an ESP32-based system equipped with environmental sensors to measure and analyze household plant conditions, facilitating informed care decisions and featuring automated irrigation for optimal plant maintenance.

- **Microcontroller Programming:** Utilized C++ to program the ESP32, ensuring efficient control of the water pump and sensor data collection.
- **API Development:** Created a JavaScript API for transmitting sensor data to an SQL database, facilitating real-time monitoring and analysis.
- **Data Management and Analysis:** Established an SQL database for storing sensor data; conducted data analysis to optimize plant care and understand environmental impacts.
- **Circuit Design:** Demonstrated expertise in electronic circuit design, effectively integrating the ESP32 with multiple sensors and the irrigation system.

JavaScript Web Calculator
Tools & Technologies: HTML, CSS, JavaScript
Crafted an interactive, web-based calculator using HTML, CSS, and JavaScript. This tool provides a user-friendly interface for various arithmetic operations, ensuring accessibility and responsiveness across different devices.

- **HTML**: Developed a clear and intuitive user interface, promoting easy navigation and user engagement.
- **CSS**: Applied responsive design techniques for optimal display and functionality on a range of devices and screen sizes.
- **JavaScript**: Programmed the calculator's core capabilities, including real-time calculations and immediate feedback to user inputs.

Personal Financial Data Analysis & Linear Regression
Tools & Technologies: Python, Pandas, sklearn, numpy
Conducted a comprehensive financial data analysis project, tracking and evaluating personal financial activities. Focused on extracting and refining data from Excel, identifying key financial patterns, and predicting outcomes using a linear regression model.

- **Data Extraction & Cleaning**: Employed Pandas for importing and preprocessing financial data from Excel, ensuring quality and accuracy for advanced analysis.
- **Feature Identification**: Identified critical variables influencing financial behavior, including activity type, participant numbers, time, and duration.
- **Linear Regression Model**: Utilized sklearn to develop a linear regression model to predict financial outcomes, offering valuable insights into spending influences.
- **Insightful Visualizations**: Generated insightful visualizations using Python libraries, illustrating financial trends and identifying potential areas for fiscal management improvement.

OTHER ENGINEERING PROJECTS

Magnetic Field Simulation of a Solenoid
Tools & Technologies: MATLAB
Designed a visualization depicting a solenoid's magnetic field, with adjustable solenoid parameters.

Media Inventory Application
Tools & Technologies: C++, pointers, Arrays
Crafted a C++ media inventory system using pointers and arrays for data management.

EDUCATION

Bachelor's in Computer Science and Technology
Tecnológico De Monterrey
08/2022 – In progress (expected 06/2026)   Monterrey, Nuevo León, México

Services Essentials for Business Diploma
Ilac International College
09/2021 – 06/2022   Vancouver, British Columbia, Canada

WORK EXPERIENCE

Produce Clerk at Choices Market
02/2022 – 06/2022   Vancouver, British Columbia, Canada
Responsible of produce section:
Oversaw detailed produce displays and inventory management, collaborating effectively with colleagues. Managed shipments, display setups, and customer interactions, highlighting proficiency in time management, problem-solving, and customer relations. Prioritized product presentation and quality, always ensuring optimal customer satisfaction.