ADRIÁN CONSTANTE

BACKEND DEVELOPER | DATA ENGINEER

ad_con.reload@protonmail.ch | LinkedIn | GitHub | LeetCode

Skills

- Python | FastAPI | SQLModel | Git | Agile | RESTful | gRPC | GitHub Actions | SQL
- Postman | Docker | Linux | Pandas | Alembic | Azure | Makefile | GCP | Go
- Dimensional Modeling | Spanish, English – *All professional proficiency or above*

Experience

Backend Developer — Havvox IT — *Mexico City, Mexico* — 01/2022 - 06/2023
Dynamics 365

- Worked on the development of an **Azure data pipeline**, from **identifying system requirements, cloud implementation, ETL engineering for as Lakehouse architecture. All this using ADF, ADLS Gen2, Databricks, and reporting to Power BI.**
- Designed and implemented **D365 enhancements and bugs, SQL queries, data visualization** to background workers and stakeholders using **Azure, D365 X++, SQL Server and Power BI.**
- Enriched system data input and output by integrating and maintain tables, views and data entities; facilitated in-depth import of data and creation of reports **leading to a more effective communication with stakeholders. High adaptability** and how to **teamwork** was needed to deliver the **best possible outcome.**

Research Assistant — CERN — *Geneva, Switzerland* — 11/2018 - 12/2018

- Led the design of the software to **automate the extract of raw data** from an oscilloscope and proposed new sensor with **Python, Linux Bash and statistical analysis,** all of this to enhance AD and V0 ALICE's detectors.

Research Assistant — Jniversidad Autónoma de Sinaloa — *Sinaloa, Mexico* — 09/2018 - 10/2018

- Engineering owner of the data signal protocols on FPGA, which **allow the team to read raw data from a high-end new sensor.**

Reseach Assistant — CINVESTAV Guadalajara — *Jalisco, Mexico* — 11/2017 - 12/2017

- Designed and implemented a project called "Haptic Robot Arm for Rehabilitation of the Upper Limbs", **making rehabilitation measurable** was achieved using **Python and Tableau**.

Education

MSc. Computer Science — CINVESTAV Guadalajara — *Jalisco, Mexico*

- **Master's degree in computer science**
- **Research Thesis:** *Hardware Module for LSTM gates acceleration*
- **Coursework:** Software Engineering, Data Structures and Algorithms, Machine Learning, Distributed Systems

BE. Biomedical Engineering — Universidad Politécnica de Sinaloa — *Sinaloa, Mexico*

- **Bachelor's degree in biomedical engineering**
- **Coursework:** Databases, OOP, Time-series data.

Major Projects

- SnippetBox (2024): Developed a web application using **Go**, which allows users to create, store, and manage code snippets. Implemented user authentication and session management to ensure secure access to user-specific data. Utilized **MySQL** for data persistence and performed CRUD operations using prepared SQL statements. Used **Makefile** for automating build tasks and deployment processes.
- RESTful API for Social Media (2023): E2E development for a Twitter-like social media API, mainly developed with **Python FastAPI** and **SQLModel ORM** and **Postgres**, it has a **CI/CD pipeline** where **Github Actions** trigger **PyTest** and Postman testing.
- Electronic Health Record System(2020): Agile teamwork to deploy a blockchain-based distributed database about EHR, ensuring the fidelity and secrecy of patient data. I launched the Ethereum Smart Contracts needed to access control on who can CRUD patient and

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medical workers data and how it was retrieved or uploaded in distributed storage IPFS. **I used Postman to test RESTful APIs that were used.** Last ones were developed with **Python FastAPI and SQLModel ORM.**

- **Facial Gesture-driven Wheel Chair(2018)**: A special electric wheelchair was built for quadriplegic people using computer vision and deep learning (CNN). I oversaw the data acquisition and image processing to train the model with facial gestures. We used and trained a PyTorch image classifier, ResNet18, with 87% accuracy in a GPU AWS instance.
- **Seahawk: Security for Mazatlan's beaches (2018)**: Computer vision system able to recognize if people were too off the coast. Main idea was to help lifeguards in Mazatlan Beaches, so we used a Mask-RCNN. My main task was image process to segment the video between beach, sea, and people, then with help of my team train the model on GPU AWS instance. We won a hackathon with it.

Continuous Learning & Certifications

- Working on Cloud Platforms (GCP, Azure) Certifications
- Data Engineering Fundamentals