OLIVER BARRERA

DATA ENGINEER

CONTACT

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Guadalajara, MX

PROFESSIONAL SKILLS

SQL
Python
Airflow
dbt
git
GNU/Linux
Cloud Platforms(Azure, GCP)
BigQuery, Snowflake
Docker
Kubernetes
Google Data Studio, PBI
Agile

PERSONAL SKILLS

Creative spirit
Diversity thinking
Endless curiosity
Fast learner
Motivated
Customer obsessed

INTERESTS

Arts
FVP Drones
Sculpting
Futbol
Travel
Concerts

SPOKEN LANGUAGES

English, Fluent
Spanish, Native

OTHERS

Mexican
Willing to relocate

PROFESSIONAL PROFILE

A human first, engineer second, I blend a vast technological background with a heart driven by meaningful impact. At Solidigm, I found an even greater challenge—collaborating with a company that demands the speed and adaptability of a startup while working on processes from scratch for a mature, widely distributed product. As part of a seasoned data engineering team, I apply best practices in system design to drive efficiency and scalability. My experience spans optimizing data pipelines, enhancing performance, and delivering impactful solutions that align technology with business needs.

WORK EXPERIENCE

SOLIDIGM
Senior Data Engineer
November 2023- Present

- Leading the migration of data pipelines from Azure Data Factory (ADF) to Apache Airflow, including requirements gathering, architectural design, and development strategies for DAGs and CI/CD processes.
- Developing and maintaining end-to-end data pipelines in an Azure + Snowflake architecture, handling diverse data sources and data products.
- Designing and deploying dynamic dashboards using Python and Streamlit, leveraging Kubernetes and Rancher for production deployment.
- Prototyping the use of Large Language Models (LLMs) on private internal datasets to accelerate engineering development.
- Developing a data catalog for enhanced data discovery and accessibility.

WITHLOCALS
Data Engineer
September 2021- June 2023

- Built and maintained a Data Warehouse on Google Cloud Platform (GCP).
- Designed and optimized data pipelines using Airflow, BigQuery, and dbt.
- Established a structured Bronze-Silver-Gold data pipeline methodology to improve efficiency.
- Enhanced data quality, reduced redundancies, and implemented integrity tests.
- Developed a robust CI/CD flow with Docker and Kubernetes for scalable deployment.
- Integrated AI-driven insights to enhance financial and product performance analytics.
- Managed remote collaboration across multiple European teams using agile methodologies.
- Streamlined cross-functional communication between developers, analysts, and stakeholders to ensure data clarity and accuracy.

INTEL CORPORATION

SW Engineer | Optane Technology
Mar 2018 - September 2021

- I worked on supporting and developing a Data ETL pipeline for evidence-based decision-making, project health, engineering tasks, and compute monitoring. Optane PreSi Validation ETL pipeline consists of many different data sources (logs streams, internal feeds, MySQL); all the data sources needed to be processed simultaneously to show different dashboards on an internal custom website.
- I developed Python scripts to process the different data sources, consisting of reading different sources, transforming the data, and loading it into our MySQL database.
- I developed a website built in Django that contains all the dashboards and statistics that my organization uses for monitoring.
- All the tools were built in a CI/CD pipeline on git and other internal tools making it a fully automated deployment.
- As a design automation engineer, I was the first contact point that admin and support the Linux environment that includes the Hardware Design Tools Suite, permissions, compute resources management, and developed scripts for tasks automation for the engineers to perform their PreSi Validation tasks.
- I managed and executed a set of PreSi simulations that the team develops for HW Verification, I guaranteed the flawless execution of these flows which were determinant in the results collections and definition of the next step of the whole team and it is an input of the Data pipeline.
- I used Agile methodologies in my work and receive support requests and development requests from a pluricultural team across USA and MEX.

HW Engineer | Graphics Processor
Nov 2014 - Mar 2018

- Developed a framework for Performance Verification in PreSi built in Ruby that allowed non-technical users to quickly add and implement performance measurements, data processing, and visualization results. This tool increased by 8x the validation efficiency and saved more than 2.5M USD In ROI. The results were published in a scientific paper presented in an Internal Intel's Conference
- I developed different tools in Ruby and Perl for functional validation that allowed me to work around system limitations and increased the coverage by 40% of the PreSi Validation.
- I owned and performed the PreSi Verification of different units of the Graphics processors including Performance and the Observability Architecture Verification of the Graphics processor, In order to achieve this I managed and executed the set of tests that guarantee the functionality of different checkpoints and features of the design, I reported and discussed the test plan for the project with the architects, designers, and validators engineers

EDUCATION

Master of Science in Telecommunication Engineering

CENTRO DE INVESTIGACION Y DE ESTUDIOS AVANZADOS DEL IPN
Tesis: Development of a single carrier communication system for wideband channels with non ideal frequency and symbol sincronization
2014 - Zapopan, México

Bachelor of Engineering in Electronics

INSTITUTO TECNOLÓGICO DE VERACRUZ
IEEE Conference paper: Fuzzy Controller Real Time Application for a Line Tracking Differential Mobile Robot
2012 - Veracruz, México