CRYSTAL VALDEZ

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TECHNICAL SKILLS

- **Languages**: Python, SQL, R, Bash
- **Competencies**: ETL/ELT, DevOps, Cloud Computing, Container Orchestration, API Development, CI/CD, Data Mining, Data Analysis, Statistics, Machine Learning, Deep Learning, Version Control, Agile
- **Technologies**: Git, AWS (EC2, S3, RDS), Snowflake, Airflow, Informatica (IICS), Control-M, FastAPI, Terraform, Kubernetes, Docker, PostgreSQL, OracleDB, Metaflow, Node.js, React.js, Streamlit

RELEVANT EXPERIENCE

Data and Software Engineer Intern, Sanofi, ON   2023-present

- Developed scalable structured and unstructured data pipelines using cloud services (Snowflake, AWS, Informatica) and open source frameworks (PostgreSQL, Airflow).
- Designed Python and SQL-based database and data warehouse solution for systems monitoring, unit testing, and data quality issues.
- Managed streaming solutions (Streamlit Snowflake, PowerBI) for global finance dashboards, in close collaboration with stakeholders.
- Built API endpoints to integrate data storage (Oracle DB, AWS S3, Snowflake, PostgreSQL) to ML workflows to front-end data visualization.
- Designed and implemented infrastructure for data marketplace product aiming to democratize data across global shareholders.
- Implemented advanced techniques to optimize data loading with zero downtime (e.g. swap strategy, incremental loading, partitioning).

Data Analyst, Immunodeficiency Dept, Toronto General Hospital, ON   2021-23

- Analyzed patient data with advanced statistics to identify factors affecting adverse Covid outcomes.
- Published scientific report and presented poster at conference to inform health monitoring for first remote detection tool of SARS-Cov-2.

EDUCATION

Digital Health Technologies, Master of Biotechnology, University of Toronto   2022-24

- Key Courses: Data Science I & II, Deep Learning, Programming, Machine Learning, Data Wrangling
- *Awards and Projects:*
    - **IMI Emerging Technology & AI Award** – developed user app interface for holly™ medical device software evaluating emotional arousal for autism, conducted *sentiment analysis* for patient and caretaker experience (React.js, Node.js)
    - **Octagon Data Science Case Competition** – predictive Markov models to evaluate how biomarkers affect clinical trial success in Alzheimer's.

Honours Specialization in Physiology, Bachelor Medical Science, Western University   2018-22

- cGPA: 3.92; Dean's Honours List all years – Continuing Admission Scholarship ($10000).
- Relevant courses: Data Structures and Algorithms, Databases I & II, Intro to Software Engineering.