ANTHONY JOSEPH MONTAJES

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EDUCATION

University of British Columbia, Bachelor of Arts | **2021 - 2025**
Major in Cognitive Systems (Artificial Intelligence), Minor in Computer Science | **GPA** 3.7/4.33 (A-)

Courses Algorithm Design, Software Construction, Applied Statistics, Machine Learning, Databases, Artificial Intelligence
Honors/Awards WL International Undergraduate Research Award ($6,000)

EXPERIENCE

Data Science Research Assistant | **Mar. 2024 – Present**
Strategy and Business Economics Division, Sauder School of Business | Vancouver, BC

- Secured WLIURA research award ($6000) to conduct research on innovation pipelines in the pharmaceutical industry.
- Created a molecule name parsing ETL script making efficient use of Python's anonymous lambda functions and regex.
- Dockerized a Selenium and concurrent.futures webscraper automating data collection for 3000+ molecules.
- Leveraged Pandas to clean data, perform EDA, and build merge pipelines for csv files with 100,000+ observations.
- Employed stratified and clustering sampling techniques in conjunction with black box tests to verify data pipeline outputs.

Data Science Workshop Coordinator | **Oct. 2023 – Present**
Visual Cognition Lab, UBC | Vancouver, BC

- Streamlined analysis by engineering internal tools and reproducible workflows using Python and Firebase.
- Engaged project leads to develop a curriculum targeting analysis pain points in visualization and reproducibility.
- Utilized JavaScript, NodeJS, and React to construct experiment conditions; maintained CI/CD using GitHub Actions.

Operations Assistant WorkLearn | **Sep. 2023 – May 2024.**
CEDaR Space - Institute of Critical Indigenous Studies UBC | Vancouver, BC

- Engineered a map-based interactive exhibit displaying language and cultural content on various British Columbia indigenous communities for UBC's Museum of Anthropology (MOA).
- Employed React, Node, and Chakra UI to implement map and dashboard front-ends.
- Designed and implemented a lab user manual for all of the space's media equipment using Figma.

Production Engineering Intern | **Nov. 2020 – Jan. 2021**
Marshall Wace | Hong Kong

- Engineered a Pythonic web app using Flask and SQL Server to convert stock labels to corresponding tickers.
- Performed and documented branch's first deployment on OpenShift 4 using Jenkins for CI/CD.
- Presented to production team directions for deploying and managing clusters via internal DevOps pipeline.

PROJECTS

Audit Risk Classifier | *R, TidyVerse, Jupyter Notebook* | **Dec. 2023**

- Utilized R programming to enhance fraud detection, creating a KNN classifier identifying high-risk firms with an accuracy of 87.7%, precision of 86.2%, and recall of 94.9% within a dataset of 777 firms.
- Leveraged TidyVerse to streamline data preprocessing, feature engineering, visualization, and model fitting.

Matrix Calculator | *Java, JUnit, Swing* | **Dec. 2022**

- Developed an application to perform matrix operations with a GUI in Swing and persistence using JSON.
- Implemented a robust back-end leveraging OOP design principles (Singleton, Observer Pattern, Interfaces).
- Achieved 100% code coverage across all branches using JUnit following blackbox and whitebox testing methods.

SKILLS

Programming Languages Python, R, SQL, Java, C, C++, Java/TypeScript, Scala.
Tools/Environments Tableau, Excel, Conda, Jupyter, Linux, Git, Firebase, MongoDB, AWS, Bash, Zsh.
Data ETL, Pipelines (Cleaning, Wrangling, etc.), Hypothesis Testing, Bayesian Analysis.
Libraries selenium, pandas, numpy, scipy, matplotlib, seaborn, sklearn, PyMC, PyTorch, TidyVerse, spaCy.
Frameworks NodeJS, Flask, JUnit, Keras, React, Tailwind CSS.