Anthony Joseph Montajes

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EDUCATION

University of British Columbia, Bachelor of Arts

Expected 2026

Major in Cognitive Science, Minor in Computer Science

Coursework Algorithm Design and Analysis, Software Engineering, Cloud Computing, Machine Learning, Databases **Honors/Awards** WL International Undergraduate Research Award (\$6,000)

EXPERIENCE

Data Scientist Intern September 2024 - Present

EPAM Systems Vancouver, BC

• Working in a project-based team focused on implementing frameworks for LLM bias detection.

- Leveraged spaCY and pandas to conduct NLP analysis of proprietary LLM outputs, using seaborn to visualize insights and support the development of a bias detection framework.
- Investigated state-of-the-art LLM bias detection methods and initiated a proof of concept using knowledge graphs.

Teaching Assistant September 2024 - Present

University of British Columbia

Vancouver, BC

- Collaborated with a Computer Science professor to teach Cognitive Science research methods, emphasizing human-centered AI in user-system development.
- Delivered personalized academic support through one-on-one consultations and online forums.
- Used Excel to visualize aggregate class statistics; revised syllabus to better meet student needs.

Data Analyst Research Assistant (Co-op)

March 2024 - September 2024

Strategy and Business Economics Division, Sauder School of Business

Vancouver, BC

- Secured WLIURA & (\$6000) to conduct research on the relationship between market concentration and innovation pipelines in the pharmaceutical industry; cross-collaboration with researchers from the University of Virginia and MINES Paris Tech.
- Implemented fuzzy string matching algorithms in Python using Levenshtein Distance to identify matches in disjoint data.
- Engineered a Selenium based webscraper automating the data collection for 3000+ molecules to be used as training data. Employed stratified and clustering sampling techniques in conjunction with black box tests to verify outputs.
- Created ETL scripts to perform data-cleaning making efficient use of Python's anonymous lambda functions and regex.
- Leveraged Pandas to clean data, perform EDA, and build merge pipelines for csv files with 100,000+ observations.

Data Science Coordinator October 2023 – Present

Visual Cognition Lab, UBC

Vancouver, BC

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

PROJECTS

Audit Risk Classifier | R, TidyVerse, Jupyter

December 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

December 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++, TypeScript, Scala.

Tools/Environments Tableau, Excel, Conda, Jupyter, Linux, Git, MongoDB, AWS, Bash, Docker.

Data Science ETL, Scrapers, Pipelines (Cleaning, Wrangling, Modelling), Hypothesis Testing, Bayesian Analysis.

Libraries selenium, pandas, numpy, scipy, matplotlib, seaborn, sklearn, PyMC, PyTorch, TidyVerse, spaCy.