Bryan Alexis Ambriz

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EDUCATION

San Jose State University
Masters of Science in Software Engineering
With Specialization in Data Science
June 2023 - March 2025
Current Student

University Of California San Diego
Bachelors of Science in Data Science
Minors in Cognitive Science & Education Studies
June 2017 - March 2022

GPA: 2.965

INTRO

I'm a current student pursuing my master's in Software Engineering in Data Science at San Jose State University.

I have a heart for melding machine learning & education; Enriched by teaching experiences, I'm poised to dive into AI, crafting software to shape learning & spark innovative business solutions.

LANGUAGES

Bilingual and Fluent in English & Spanish.
Novice to Intermediate in French.

RELEVANT EXPERIENCE - San Diego, CA

Registered Behavioral Technician
TRUE ABA (Applied Behavior Analysis) – (Feb – May 2023)
30 hours/week

ACES (Comprehensive Educational Services,Inc.) – (Oct.2022-Feb 2023)
20 hours/week

Registered Behavioral Technician or RBT work alongside a Board Certified Behavioral Analyst (BCBA) in home-based as well as clinic and group-based settings. My role as a RBT involved providing services to clients by tracking behavioral data and providing solutions in the form of beneficial mental health systems. These systems supported clients in reducing maladaptive behaviors and increasing their skills.

COVID-19 Software Research Intern
Scripps Research Translational Institute – (Jun-Aug 2022)
La Jolla Shores, California, United States
40 hours/week

As a software research intern, my role facilitated a data science project in the field of genetics and epidemiology, specifically regarding Covid-19. My tasks involved guiding the software development process within a team of less experienced interns via project management alongside our project mentor within the Andersen lab. At the end of the internship, I communicated the results at a poster presentation with my co-interns at Scripps.

Triton Research Experiential Learning Scholarship
UC San Diego · Jan 2020
15 hours/week

At UC San Diego, I proposed & designed an independent research project which examined human developmental metrics by data analysis of U.S Census Bureau data. I found a correlation between living arrangements and socioeconomic status.

PROJECTS

Outbreak - *So ware Engineering (40 hours/week, Scripps Research Internship)*

Outbreak.info is a website containing a REST API that is accessible via an R package of the same name. To extend the application of worldwide SARS-Cov-2 data and resources in research, I helped create a new Python package with similar functionality. To extract the data, I created a top-level recursive method to request data from many of the major endpoints and serve it to wrapper functions dealing with covid-19 cases, lineage mutation, and genomic data. Thus, the function is generalizable and is able to handle idiosyncratic http URLs and field arguments. To deobfuscate naming patterns caused when many locations with the same name exist across administration levels (city, state, country), I implemented a function to help users target specific location codes or general locations.

Particle Physics Result Replication — *Machine Learning (40 hours/week - 6 months in school capstone project))*

- Implemented a Machine Learning model in Python that takes as input large datasets collected from CERN's Large Hadron Collider for the identification of Higgs Boson particles.
- Utilized UPROOT library to load data remotely, which saves memory by o oading memory usage onto a remote server.
- Utilized awkward library to load tree data from uproot into a usable format that facilitated visualization and ML.
  Evaluated model features using ROC (Receiver operating characteristic) curves. AUC (Area under the curve) of feature with comparison to random (coin flip) feature used for understanding model accuracy.
  The model classified Higgs Boson particles decaying to bb jets with accuracy similar to the published model.

Text-to-Image Generation with A.I — *Data Analysis (8 hours/week, 8 months independent project)*

- Developed a tool to process and analyze data taken from open-source artwork for insight into Latin American & non-Latin American art.
- Implemented Image Data Feature Extraction, Transformation & Loading (ETL) using PIL package in Python
- Created visualizations of the aggregate color schema of multiple genres.
- Used data from the NGA (National Gallery of Art) database, using data scraping techniques to extract image data from the API & PostgreSQL to query the data.
  To hypothesis test the theory that Latin America has a detectable art style or thematic motif visible within the data and artwork, I am creating a text-to-image model to visualize the art taken from the NGA API using text prompts.
  Implemented a text and image classification model to classify titles according to geographical region.

SKILLS

Programming Languages: Python, Java, HTML, CSS, Matlab, R
Machine Learning: Sci-kit Learn, Pytorch
Distributed Processing: DASK, Apache Spark, Kubernetes
Softwares/Tools: Numpy, Pandas, AWS Services (e.g EC2/S3/EMR/EKS/AppRunner), MySQL, GitHub.

CERTIFICATES

Introduction to Data Science in Python
Completed July 13, 2018
https://coursera.org/verify/D2NBZGZLZU9A
Deep Neural Networks with Pytorch
Completed Jan 2, 2022
https://coursera.org/verify/XUT5BDWHTZD4
Containerized Applications on AWS
Completed May 19, 2023
https://coursera.org/verify/N33C4GDT7CKC