JACOB MESTRE

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Education

California Polytechnic State University, San Luis Obispo   **Grad. June 2024**
Bachelors of Science, Computer Science   *San Luis Obispo, CA*

Work Experience

Data Annotation   **July 2024 – Present**
AI Prompt Engineer   *Remote*
- Evaluated and compared the performance of multiple AI models, providing feedback to refine responses and improve overall accuracy.
- Researched and validated AI-generated responses to ensure the accuracy, reliability, and originality of information provided by chatbots.
- Crafted high-quality written content in response to specific prompts.

Projects

Rheumabuddy | *GDScript, Godot*   **June 2024**
- Developed a video game designed to educate children on juvenile idiopathic arthritis (JIA).
- Designed and implemented artwork, combat system, physics, and platforming via Godot collision objects.
- Conducted research on JIA and interviewed individuals with firsthand experience to steer development decisions and features.

Movie Revenue Model | *Scala, Spark*   **May 2024**
- Machine learning model that predicts movie revenue based on genre, budget, and company data.
- Analyzed a dataset from TMDB consisting of over 4,000 entries.
- Employed data cleaning techniques via numPy to enhance model accuracy.
- Developed and implemented a predictive analytics solution using Apache Spark and Scala.

Unnamed | *Unity, C*   **May 2024**
- Top-down horror video game highlighting the use of flashlight mechanics for survival.
- Implemented artwork and collection system.
- Managed the life cycle of the entire project by facilitating team meetings, setting milestones, and streamlining issue resolution through swarming.

Predictive Final Grades Model | *Python, Pandas, SKLearn*   **April 2024**
- Created a model to estimate final grades based on early performance in a class.
- Integrated and analyzed multiple data sources to create a unified dataset of over 3,000 student records, utilizing data manipulation techniques via Pandas.
- Applied linear regression analysis to determine the influence of specific topics on final grades, achieving a mean squared error (MSE) of 0.02.

Mission Log | *JavaScript, MongoDB, React*   **December 2023**
- To-do list web app that gamifies daily tasks.
- Designed and implemented UI (new tasks, updated tasks, and drop-down menu).

Coursework

- Data Structures
- Object Oriented Programming (OOP)
- Introduction to Entrepreneurship
- Design & Analysis of Algorithms
- Database Systems
- Systems Programming
- Computer Architecture
- Assembly Programming (x86)
- Operating Systems
- Distributed Computing
- Computer Security

Core Competencies

Languages: Assembly, Bash, C, C++, GDScript, Java, JavaScript, MongoDB, Python, React, Scala, Spark, SQL
Tools: Godot, Linux, Unity, Git, Excel
Skills: Data Structures, Distributed File Systems, HTML, Object Oriented Programming (OOP), Unix Development