Marco Lam

Software Engineer

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PROJECTS

Rhythm Game Discord Bot | Programmer
Feb. 2021 - Late 2023

Implemented with discord.py-rewrite API (**Python)**

- Chat commands to provide song data from 100+ rhythm games
- Parsed text input into query to search by multiple fields, including title, song artist, game, etc.

Collaborated with community contributors to structure song data into csv spreadsheet to generate storage with multi-layered attributes (such as sub-difficulties).

NLP Comment Analysis | Class Project in A.I.
Fall-Winter 2022

Collaborated in a 3-person group to analyze if a comment was toxic

- ran various models on Kaggle's Toxic Comment Classification personally ran Logistic Classifier, but models also include LSTM
- used pandas and matplotlib to visualize data and accuracy
- overall accuracy from 90% to 99%, depending on category

Mini Search Engine | Solo Class Project (Python)
Nov. 2022

Implemented web crawler and index searching

- performance requirement of <200ms results from 200k+ pages
- multi-threaded Web Crawler that respects politeness policy
- two-pass searching with tf-idf scoring and inverted-index

FIRST Tech Challenge Robotics | Programmer
Sept. 2016 - April 2018

Pair-programming in **Java using ftc-app framework**.
Collaborated in a team environment with other disciplines (hardware, business)
Taught programming as mentor for newer team members

SKILLS

- Proficient in **C#**, **Python**; experienced with **C++, Java, Lua, HTML, CSS**.
- Jupyter notebook & LaTeX
- Version Control (**Git** and **Github**)

EDUCATION

University of California, Irvine

- Overall GPA 3.97
- B.S. in Computer Game Science
  Sep. 2020 - Apr. 2024
- B.S. in Computer Science
  Oct. 2021 - Apr. 2024 (Double Major)

RELEVANT COURSEWORK

- Data Structure Implementation and Analysis
- Design and Analysis of Algorithms
- Machine Learning and Data-Mining
- Algorithms for Probabilistic and Deterministic Graphical Models
- Information Retrieval