Jaime Cabrera

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Education

UNIVERSITY OF CALIFORNIA, BERKELEY Berkeley, CA
Computer Science, B.A. 3.30 May 2024
Relevant Coursework: Introduction to Economics, Microeconomics, Principles and Techniques of Data Science, Structure and Interpretation of Computer Programs, Data Structures, Discrete Mathematics and Probability Theory, Designing Information Devices and Systems

Experience

JPMorgan Chase & Co. Plano, TX
Software Engineering Summer Analyst June 2022 – July 2022

Utilized business logic to develop software that tackled issues in under-banked communities. Led team to promote growth and scheme digital expansion in a minority depository institution's customer base with targeted marketing strategies, and presented business case to C-suite executives. Ideated and developed hackathon website for protection of sensitive banking information using MERN stack. Placed first in internal robotics competition, among other tech locations within the firm.

Projects

SPAM/ HAM EMAIL CLASSIFIER

Trained a binary classification model based on the Apache SpamAssassin database of emails. Employed Python libraries including Numpy, Pandas, Seaborn, Scipy, SKlearn, and Matplotlib to train a model that detected spam emails. Model achieved over 93% validation accuracy. Performed feature engineering, exploratory data analysis, and logistic regression.

GITLET VERSION CONTROL SYSTEM

Implemented a version-control system for local and remote repositories using Java. System mimicked major features of Git, including commit, branch, merge, push, and pull. Designed persistence employing serialization and a Cryptographic hash function (Secure Hash Algorithm 1) to store and reference meta data.

VIDEO GAME 2048

Built my own version of the iconic sliding tile puzzle game using Java. Much like the original, the game allows the player to choose the tilt direction via arrow keys, player earns points through merges (maximum score is updated). Applied the core game logic and implemented the tilt operation using two software design patterns: the Model-View-Controller Pattern (MVC) and Observer Pattern.

MOVIE GENRE CLASSIFIER (MACHINE LEARNING, , NATUAL LANGUAGE PROCESSING)

Constructed a classifier using the Python language which classified movies into one of 5 genres based on the frequency of various words in the movie script using K-NN algorithm. Built a separate classifier using logistic regression.

CARDIOVASCULAR DISEASE: CAUSES, TREATMENT, AND PREVENTION

Investigated the major cause of death in the world, looking at decades of medical research (dated 1900-2015), and analyzed multiple causes and effects of cardiovascular disease across four different studies. Additionally, investigated the treatments and preventions through statistical hypothesis testing and A/B testing. Concluded that a low saturated fat diet caused a significant difference in the death rate of participants in the National Heart-Diet Study.

Skills & Interests

Technical: ArcGIS, GitHub, React.js, Node.js, Express.js, Django, AWS, UI/UX, REST API,
Languages: Python, Java, JavaScript, HTML, CSS, JSON, R, SQL, MATLAB
Libraries: OpenCV, Matplotlib, Numpy, Pandas, Regex, React Bootstrap, SIMD, MongoDB, PostgreSQL
Interests: Data Analysis and Research, Mathematics, Artificial Intelligence, Machine Learning, Full-Stack Web Development