Rory McGinnis

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Education

San Francisco State University Dec 2023
Bachelor of Science Computer Science 3.85 GPA
Minor in Mathematics

Experience

Software Developer, Revivle May 2024- Current

- Revival empowers you to effortlessly organize the items you own, define your style, and streamline their lives.
- Key contributor on the development team, building the first iteration of Revival's product.
- Utilized AI APIs to optimize and streamline processes, enhancing user experience and functionality.
- Working to ensure seamless integration and implementation of new features.

Artificial Intelligence Development and Research, San Francisco State University March 2023- January 2024

- Engineered a system from scratch to create an image dataset for future training and testing. Optimized performance and accuracy.
- Built a testing framework to evaluate the efficiency at image identification and speed of five cutting-edge AI models: AlexNet, MobileNet, MnasNet, ShuffleNet, and SqueezeNet.
- Applied big data techniques for speed and efficiency during model testing, leveraging my coding experience to ensure the robustness and reliability of the evaluation process.
- Implemented D3.js to develop visually stunning and informative data visualizations, showcasing the nuanced performance metrics of each model with precision and clarity.

Random Forest Development and Research, San Francisco State University April 2023- December 2023

- Conducted an in-depth evaluation of model performance utilizing out-of-bag accuracy, confusion matrix analysis, and visualization of feature importance.
- Developed and evaluated a random forest classifier tailored for biological data analysis, utilizing coding expertise to focus on classifying samples into i1 and non-i1 clusters based on their gene profiles.
- Programmed a robust assessment framework to accommodate diverse data characteristics and F1 score considerations.
- Produced notable research outcomes, leading to the integration of the work into Professor Petkovic's curriculum. This work was highlighted in an article by the SF Chronicle about Professor Petkovic's contribution to integration of AI with education.

Projects

Human Pose Estimation (Python, Blender, NumPy, OpenCV, MediaPipe) https://github.com/rorymcginnis1/HumanPoseEstimation.git

- Synergized computer vision and 3D modeling technologies to project captured gestures onto a virtual avatar, enhancing user interaction and immersion
- Implemented real-time gesture tracking using a camera to capture user movements
- Developed an innovative human pose estimation system utilization advanced computer vision techniques
- Utilized Blender for 3D modeling and animation to enhance the immersive experience

Mini YouTube (JavaScript, HTML, CSS, HandleBars, SQL, AWS) https://github.com/rorymcginnis1/MiniYouTube.git

- Conceptualized and developed a fully functional web platform inspired by YouTube's core features
- Implemented robust user authentication mechanisms, facilitating secure account management and content access
- Enabled seamless video upload and removal capabilities, empowering user-generated content contribution
- Enhanced user engagement through interactive features such as comment sections
- Leveraged AWS for remote database services, optimizing data storage, scalability, and reliability

Twitter Sentiment Analysis (Python, Pandas, NumPy, scikit-learn, PyTorch) https://github.com/rorymcginnis1/Sentiment-Analysis.git

- Developed a sentiment analysis model using MLP for twitter data with four distinct sentiment classifications Positive, Negative, Neutral and irrelevant
- Implemented data preprocessing techniques to clean and filter tweets using regular expressions
- Created custom Pytorch datasets for sentiment analysis handling feature and label processing with one-hot encoding
- Designed the MLP architecture using a neural network model
- Evaluated the models performance on the test set and achieving a competitive accuracy percentage

Skills

Languages: Python, Java, C++, C, C#, HTML, Javascript, SQL
Tools/ Frameworks: Git, Flask, React, Pandas, NumPy, Blender, Trello, Node, MongoDB, SpringBoot
Machine Learning: Pytorch, scikit-learn, OpenCV, TensorFlow, Random Forest, Big Data