Ricky Martin

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WORK EXPERIENCE

Mid-Level Machine Learning (AI) Engineer

Ardent MC / New York, NY (Remote) / JAN 2022 – PRESENT

- Led the creation and deployment of a document classifier using XGBoost on heavily skewed data, achieving best PRAUC score of .91 after employing SMOTE techniques. Built in AWS using Redshift and SageMaker
- Led end-to-end R&D of time series models (ARIMA, Kalman Filter, Prophet) to monitor resource usage of 50+ micro services in Splunk predicting anomalies prior to occurrence, resulting in 90% reduction in time targeting errors organization wide
- Developed GraphQL, Python, and Oracle ETL Pipeline to analyze 3000+ internal repositories for security team weekly
- Analyzed and reported on patterns of bias in 10TB of application results held within Databricks using SQL, SparkSQL, and Hadoop

Data Scientist

Redica Systems (Formerly Govzilla) / Los Angeles, CA (Hybrid) / OCT 2020 – OCT 2021

- Implemented production-level Unsupervised DBSCAN algorithm in Python, utilizing NLP techniques like TF-IDF to cluster documents by learned similar subjects, reducing prior manual labeling process by 40+ hours
- Collaborated with cross-functional teams to identify specific client KPIs, leading to the creation and weekly presentation of customizable Machine Learning Model Monitoring Dashboards in Tableau tailored to non-technical clientele
- Improved precision by 10% and recall by 8% of semi-supervised classifier through use of feature engineering
- Structured complex data queries and data mining in MongoDB per specified FDA subject matter

Software Engineer, AI Research Specialist

UCSD Bio Inspired Robotics and Design Lab / San Diego, CA / May 2018 – July 2021

- Spearheaded the construction of 5 distinct iterations of touch-based artificial skins using Arduino Uno, force sensors, and Python/C++ pipeline to extract, clean, transform, interpret, and train Sequence-to-Vector Deep Learning Models
- Achieved average 93% accuracy across different users and skin mediums using LSTM on Live classification
- Devised a Random Forest parameter tuning pipeline that utilized impactful features for 95% faster classification
- Shih, B., Lathrop, E., Adibnazari, I., Martin, R., Park, Y.-L., Tolley, M.T. (2020), "Classification of components of affective touch using rapidly manufacturable, soft, sensor skins", in 2020 IEEE-RAS International Conference on Soft Robotics (ROSO20), in press

Data Scientist

GoSite / San Diego, CA (Hybrid) / OCT 2019 - OCT 2020

- Programmed and deployed recommendation system that ranked new leads on predicted call length using SVM and probability of purchasing website development services using KNN based on past conversion data achieving 20% increased closure rate

PROJECTS AND LEADERSHIP

Fine-Tuned ChatGPT Chatbot for personal Website

- Built, Dockerized, and Deployed Fine Tuned ChatGPT chatbot clone using OPENAI API, LLaMA, and LangChain to query user input and return dad jokes (limited scope to just dad jokes to reduce cost) **website**: personalportfolio-rlm.herokuapp.com/

Robot Arm Optimal Path Finder

- Instructed a team in applying Q-Learning Reinforcement Learning to find optimal path through 3d printed maze using robotic arm

TECHNICAL SKILLS

Frameworks: NumPy, Pandas, Scikit-Learn, Matplotlib, Seaborn, OpenCV, TensorFlow, Keras, Pytorch, NLTK

Domain Knowledge: Ensemble Learning, DNN, CNN, GAN, RNN, GRU, LSTM, Transformer, BERT, GPT, LM, Generative AI

Technologies: Python, SQL, No-SQL, C++, Git, Jupyter, Docker, Databrick, Kubernetes, Spark, Hadoop, AWS, Tableau, MongoDB

EDUCATION

University of California, San Diego (UCSD) / Graduated July 2021

B.S. in Cognitive Science (Machine Learning Specialization)