Matt Prodani

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EDUCATION

New York University New York, NY | May 2024
B.A. Computer Science and Data Science

EXPERIENCE

SYMEND | Software Engineer Intern - Predictive Services Denver, CO | May 2022 - Aug 2022

- Utilizing Machine Learning tools such as Keras and TensorFlow used for a recommender system
- Analyzing large datasets from clients and engineering SQL and Python database pipelines
- Optimized a large processing function to reduce processing time from over 15 minutes to under one minute
- Implemented changes to a recommender system to make it compatible with twice as many customers.

PROJECTS

DOCUCLOUD - IN PROGRESS Swift, JavaScript, Firebase, React

- A full-stack encrypted document storage platform with a web app and mobile app. Using iOS document recognition libraries and image scanning, with Firebase authentication and data encryption to ensure security.

PAINTINGGAN Python, PyTorch, OpenCV, Numpy, HTML, CSS, Data Analysis

- A generative model using PyTorch and the StyleGAN library that generates Van Gogh style paintings after being trained on a dataset of about 15,000 paintings and specialized on the artist. An example generation is developed in the website or through the Colab.

JPMORGAN CHASE DATA FOR GOOD HACKATHON Python, R, Pandas, Excel, scikit-learn

- A 24-hour hackathon at the JPMorgan office in Plano, TX. Our team of six developed a model to find ways to source agriculture with the best possible social impact. I built a multivariate binomial regression to maximize social good, while minimizing environmental impact by using it as a loss function. Developed a Demo GUI to quantify and visualize the model.

IOT PAINTING C++, Arduino, WebHooks, JSON API

- A personal project where I wired an Arduino microcontroller to a painting with electrical paint, programmed to connect to Wi-Fi and change light colors based on the part of the painting tapped through voltage sensing.

PEDDIE COMMUNITY BOARD Python, NodeJS, MySQL, Heroku, Django

- Group project for a private forum for students to collaborate and share information with task delegation through Trello. Used the Django Python framework and hosted the website locally through school servers

MANAGEBAC MOBILE Java for Android, JSON

- Built a Java based Android app for my school's grade management system in 8th grade. Utilized Python and HTML requests to build a custom JSON API that parses data from the gradebook.

RELEVANT COURSEWORK

Computer Science: AP Computer Science, Data Structures and Algorithms, Computer Systems Organization, Intro to Machine Learning, Intro to Data Science with Pandas and Numpy, Natural Language Processing
Math: Discrete Mathematics, Linear Algebra, Multivariable Calculus, Probability and Statistics for Regression Models

SKILLS

Technologies: Java, JavaScript, Python, R, C++, HTML, CSS, C, OOP, Git, MongoDB, LaTeX, Italian, Albanian, Agile, Azure