# MATT PRODANI

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#### EDUCATION

## New York University - Courant Institute of Mathematical Sciences

B.A. Computer Science and Data Science

New York, NY May 2024

WORK EXPERIENCE

Symend

Software Engineer Summer Intern

Denver, CO

- May 2022 Aug 2022
- Designed part of a custom Transformer ML model using TensorFlow
- Analyzed large datasets to build data pipelines using SQL and Python
- Optimized a processing function to run in under a minute from 15 minutes
- Implemented changes to a model system to allow twice as many customers to be compatible

#### PROJECTS AND COMPETITIONS

## FolioWatch Python, Pandas, BeautifulSoup

github.com/mattprodani/FolioWatch

A Python model that takes my portfolio holdings and scrapes websites for market data to create a PDF or HTML report every morning. Built with a custom API to authenticate and access Schwab holdings data as well as other data sources.

#### DocuCloud 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, HTML

mattprodani.github.io/talentless-artist/

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.

## **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 Board** Python, Django, MySQL, Heroku github.com/rohannunu/PeddieCommunityBoard2.0 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.

# JPMorgan Data For Good Python, R, Pandas, Scikit-Learn, Excel

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. Developed a Demo GUI to quantify and visualize the model.

### Coursework

CS: Data Structures and Algorithms, Computer Systems Organization, Intro to ML

Intro to Data Science, Natural Language Processing, AP Computer Science

Math: Discrete Mathematics, Linear Algebra, Multivariable Calculus, Probability and Statistics

SKILLS

Technologies: Java, JavaScript, Python, R, C++, HTML, OOP, SQL, Git, LaTeX, Agile, Azure