John Corio

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Experience

Associate Data Scientist Mar 2022 – Jun 2023
IBM *New York, NY*

- Developed machine learning assets using Python, Scala, Java, and SQL, open-source libraries (scikit-learn, Tensorflow, Pandas, Apache Spark, etc.), and proprietary software frameworks to address individual business use cases and increase software sales.
- Gathered project requirements with client, performed data exploration and processing, and lead implementation of regression models in Scala and Java using Apache Spark to transition a major banking client's overdraft system that mediates millions of commercial and personal transactions per day from rule-based architecture to AI.
- Created NLP assets for a banking client that perform document sectioning, entity extraction, and section classification on PDF and Word documents using deep-learning and rule-based algorithms in Python Jupyter notebooks, via open-source text processing libraries and proprietary machine learning libraries.
- Completed multiple client MVPs to help achieve the most successful quarter for software sales in IBM Financial Services Market history.

Data Quality Assurance Analyst Jun 2021 – Feb 2022
ImageCare Centers *Newton, NJ*

- Drafted first designs of a proprietary SQL database specifically for analytics, migrated large datasets from a third-party software vendor, and wrote SQL test queries to verify data quality
- Created SQL queries, tables, and views to pull and evaluate data used in analytics informing on key KPIs.

Japanese Language Student Jul 2023 – Mar 2024
ISI Language School *Tokyo, JP*

- Studied Japanese in upper level language classes at ISI Takadanobaba in preparation for the JLPT N2 exam.

Projects

Album Art Generator | *Python, PyTorch, OpenCV, Matplotlib, Pillow, SpotiPy*

- Implemented 3 different generative adversarial neural networks based on computer vision research publications and individual design to generate album covers displaying aesthetics of various genres
- Implemented a data processing, labeling, and splitting routine using Pillow and OpenCV to produce a cleaned dataset of over 150,000 images.
- Wrote Python scripts to query and extract images and desired metadata from JSON objects stored on the Spotify developer API via the SpotiPy library.

Yelp Review Classifier | *Python, scikit-learn, Matplotlib, Pandas, NLTK*

- Achieved top 10 percent in class on testing dataset accuracy for an NLP-based classification model of the emotional modality of Yelp reviews in Python using Jupyter notebooks
- Created an automated framework for training and optimizing hyperparameters, evaluating and comparing support vector machines and deep learning models, and reviewing validation set accuracy results.

Nocturne: Videogame | *C#, Unity Engine*

- An original point-and-click and 3D game made using C# in Unity Engine in collaboration with another developer.
- Designed and implemented item and inventory systems, an item combination system, interactions between items and the environment and NPCs, in-game puzzles, and game management systems.
- Tracked development and task management via Notion, source control via GitHub, and published to itch.io.

Education

University of Michigan Ann Arbor, MI
Bachelor of Sciences in Data Science, Minor in Mathematics *Aug 2017 – May 2021*

Technical Skills

Languages: Python, C#, C++, Scala, Java, SQL, R, JavaScript
Libraries: Apache Spark, scikit-learn, PyTorch, Tensorflow, CUDA, Pandas, NumPy, Matplotlib, C++ STL
Developer Tools: Git, Xcode, Visual Studio, VS Code, Jupyter Notebooks, CMake, Google Colab, IntelliJ