

# John Corio

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## EDUCATION

**University of Michigan: College of Literature, Arts, and Sciences**

*BSc in Data Science, Minor in Mathematics*

Ann Arbor, MI

Aug 2017 – May 2021

## EXPERIENCE

**Client Engineering Data Scientist**

Mar 2022 – Jun 2023

*IBM*

*New York, NY*

- Developed machine learning assets using various programming languages (Python, Scala, Java, SQL), open-source libraries and tooling (SKLearn, Tensorflow, Pandas, Spark, etc.), and proprietary software solutions to address individual business use cases and increase software sales.
- Contributed to requirements gathering with client, data exploration and processing, and implementation of regression models in Scala Spark API 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.
- Utilized Python Jupyter notebooks, open-source libraries, and proprietary software to create a document analysis asset for a banking client that performed document sectioning, entity extraction, and section classification on internal documents using BERT and rules-based algorithms.
- 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 quality assurance tests
- 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*

- Studying Japanese in upper intermediate level classes at language school in preparation for the JLPT N2 exam.

## PERSONAL PROJECTS

**Nocturne** | *C#, Unity Engine, Git, Ableton Live 11*

Apr 2023 - Oct 2023

- A short point-and-click and 3D game made in collaboration with another developer, published on itch.io.
- Designed and implemented inventory backend and UI, an item combination system, interactions between items and the environment and NPCs, and more.
- Developed plot, collaborated on art direction, and composed original songs and sound design and effects.
- Tracked development and task management via Notion.

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

Nov 2020 – Dec 2020

- Implemented 3 different generative adversarial neural networks based on computer vision research publications and individual design to generate album covers from random noise tensors designed to fit aesthetics of genres such as rock, pop, and others
- Designed a script to query the Spotify API using the SpotiPy library, extract desired data from JSON objects, and export cleaned image dataset to a preprocessing routine using Pillow and OpenCV

**Yelp Review Classifier** | *Python, SKLearn, Matplotlib, Pandas, NLTK*

Sep 2020

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

## TECHNICAL SKILLS

**Languages:** Python, C++, C#, Scala, SQL, R, JavaScript, HTML/CSS

**Libraries:** Apache Spark, SKLearn, PyTorch, Tensorflow, Pandas, NumPy, Matplotlib, C++ Standard Template Library

**Developer Tools:** Git, Xcode, Visual Studio, VS Code, Jupyter Notebooks, Google Colab, IntelliJ

**Relevant Knowledge:** Linear algebra, multivariate calculus, statistics, computer vision