# Claudio Perinuzzi

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## EDUCATION

**Queens College, City University of New York** *GPA: 3.85/4.00*
*Master of Arts in Computer Science* May 2025
*Bachelor of Arts in Computer Science* December 2024
**Stony Brook University, State University of New York**
*Bachelor of Science in Biology* May 2019

Relevant Coursework:
Data Science & Analytics, Data Mining & Warehousing, Software Engineering, Deep Learning, Data Structures & Algorithms, Object-Oriented Programming, Operating Systems, Database Systems, Distributed Systems, Internet & Web Technologies, Probability & Statistics, Microbiology, Genetics

## TECHNICAL SKILLS

**Programming**: Python, Java, C++, JavaScript, HTML/CSS, PostgreSQL, MySQL, MATLAB
**Frameworks**: React, Streamlit, Pandas, SQLAlchemy, Matplotlib, NumPy, PyTorch, Scikit-Learn, OpenCV, FastAPI
**Tools**: Git, GitHub, Unix, Bash, Docker, Roboflow, Tableau, eClinicalWorks (EHR)

## EXPERIENCE

**Software Developer/Data Manager** May 2016 - Present
*East End Hand Surgery* *Port Jefferson, NY*

- Develop custom Python software applications to automate clinical workflow tasks such as patient directory creation, email generation, and batch file encryption, saving my team 8+ hours each week.
- Manage and organize 2+ TB of internal records, ensuring data integrity and security of backups.
- Successfully reorganized the company's file structure, leading to a 2× increase in productivity by improving file retrieval and storage efficiency.

**Machine Learning Specialist - LLM Training & Debugging** April 2024 - Present
*Data Annotation Tech* *New York, NY*

- Apply Reinforcement Learning from Human Feedback (RLHF) to enhance the efficiency and adaptability of machine learning models.
- Debug and optimize code provided by models while ensuring compliance with legal/ethical standards.
- Leverage prompt engineering techniques to evaluate and improve model performance.

**Data Science Fellow** July 2024 - May 2025
*CUNY Tech Prep* *New York, NY*

- Accepted into a highly competitive year-long data science fellowship where I utilized machine learning and data science techniques such as data engineering, exploratory data analysis (EDA), statistical modeling, data visualization, model evaluation and optimization.

## PROJECTS

**C-Sphere** | GitHub Repository May 2025

- Implemented semantic vector search, embedding-based retrieval, and AI-generated summarization as part of a Retrieval-Augmented Generation (RAG) pipeline for C-Sphere, a full-stack web app and Chrome extension that enables users to rediscover saved bookmarks through intelligent search.

**Gesture Once** | GitHub Repository December 2024

- Collaborated with a team to train and fine-tune an Ultralytics YOLO object detection model for recognizing and classifying ASL (American Sign Language) gestures, achieving a precision of 97.8%.
- Built the backend in Python, leveraging Roboflow for data preprocessing and augmentation, and contributed to building a React-based frontend in JavaScript.

**NYC Air Quality Heat Map Predictor** | GitHub Repository | Live Demo September 2024

- Developed a Streamlit web app using NYC OpenData to visualize, analyze, and predict yearly AQI trends for NYC neighborhoods.
- Utilized pandas for data handling and scikit-learn for machine learning, achieving 97% accuracy.

**Social Media Addiction Predictor** | GitHub Repository | Live Demo May 2024

- Implemented a Random Forest machine learning model in Java to predict social media addiction given user-provided information, including social media habits and socioeconomic background.
- The model achieves an average accuracy of 98%, ensuring reliable predictions.

**PDF Encrypt** | GitHub Repository July 2023

- Developed a Python-based Graphical User Interface (GUI) to efficiently encrypt multiple PDFs simultaneously, allowing users to save time by securely encrypting files in bulk.