

Claudio Perinuzzi

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EDUCATION

Queens College, City University of New York

Master of Arts in Computer Science

Bachelor of Arts in Computer Science

GPA: 3.85/4.00

May 2025

December 2024

Stony Brook University, State University of New York

Bachelor of Science in Biology

May 2019

TECHNICAL SKILLS

Programming/Databases: Python, SQL (PostgreSQL, MySQL), Java, C/C++, JavaScript, HTML/CSS, XML, JSON

Frameworks: React, Streamlit, FastAPI, SQLAlchemy, Pandas, NumPy, PyTorch, JUnit, Unittest, Scikit-Learn

Tools: AWS (EC2), Git, GitHub, Jira, Maven, Docker, Conda, Unix, Bash, Tableau, eClinicalWorks (EMR)

EXPERIENCE

Software Application Analyst/Programmer

May 2016 - Present

East End Hand Surgery

Port Jefferson, NY

- Design, build, implement, test and modify custom graphical user interfaces (GUIs) written in Python that seamlessly integrate with EMR systems to automate healthcare workflows, saving end-users 14+ hours weekly.
- Translate business requirements into technical solutions, identifying and implementing existing software where possible, and developing custom applications for specific niche problems.
- Serve as a primary Application Analyst and EMR Administrator, overseeing all application configurations, workflow optimization, and user access control to ensure seamless clinical and business operations.
- Create and manage comprehensive documentation for custom Python applications and EMR system configurations, and provide training to ensure end-user proficiency and streamlined workflows.
- Manage multiple simultaneous application projects throughout the Software Development Lifecycle (SDLC), including application development/integration, system upgrades, and data migration initiatives, effectively prioritizing work assignments to meet critical deadlines.
- Act as the key liaison for clinical staff, the EMR provider and third-party vendors, proactively troubleshooting issues, coordinating system updates, and championing new features that directly improve operational efficiency.
- Manage 2+ TB of sensitive patient records, ensuring data integrity, security, and adherence to HIPAA compliance through robust backup protocols and data management best practices.
- Led the successful reorganization and modernization of the company's digital file structure, including the migration to an optimized, centralized storage solution, which reduced data storage and retrieval time by 50% and directly contributed to increased productivity.

Machine Learning Specialist - LLM Training & Debugging

April 2024 - Present

Data Annotation Tech

New York, NY

- Debug and optimize code to effectively train and enhance large language model (LLMs) responses.

Software Engineering & Data Science Fellow

July 2024 - May 2025

CUNY Tech Prep

New York, NY

- Selected for a highly competitive year-long fellowship applying modern software engineering practices and system design principles to develop full-stack solutions, utilizing version control and adhering to the SDLC.
- Applied machine learning and data engineering techniques such as, data extraction, data cleaning, exploratory data analysis (EDA), statistical modeling, data visualization, model evaluation and optimization.

PROJECTS

C-Sphere | [GitHub Repository](#)

May 2025

- Collaborated with a team of 3 to build a full-stack web app, accessible via a Chrome extension that intelligently summarizes, organizes and helps users rediscover saved bookmarks through advanced search capabilities.
- Engineered a Retrieval-Augmented Generation (RAG) backend pipeline by combining intelligent content summarization, semantic vector search, and embedding-based storage/retrieval using PostgreSQL, resulting in optimized user data storage and intelligent content querying.

Breathe NYC | [GitHub Repository](#) | [Live Demo](#)

September 2024

- Developed a Python Streamlit web app using NYC OpenData public datasets to visualize, analyze, and predict yearly/seasonal AQI (Air Quality Index) trends for NYC neighborhoods, achieving 97% accuracy.
- Leveraged pandas and scikit-learn to build a data cleaning and linear regression machine learning pipeline, delivering actionable insights from raw data via an intuitive interface for critical decision support.

MindfulNet AI | [GitHub Repository](#) | [Live Demo](#)

May 2024

- Implemented a full stack web application using React that predicts social media addiction based on user input and offers personalized healthy habit recommendations given user interests and location.
- Built, trained and rigorously tested a backend Random Forest machine learning model in Java to predict social media addiction that achieves 98% accuracy, ensuring accurate and reliable results.

PDF Encrypt | [GitHub Repository](#)

July 2023

- Developed a Python-based Graphical User Interface (GUI) featuring drag-and-drop support for efficient, simultaneous encryption of multiple PDFs, enabling users to securely encrypt files in bulk and save time.