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

TECHNICAL SKILLS

Programming/Databases: Python, Java, C/C++, JavaScript, HTML/CSS, PostgreSQL, MySQL
Frameworks: React, Streamlit, FastAPI, SQLAlchemy, Pandas, NumPy, PyTorch, JUnit, Scikit-Learn, OpenCV
Tools: Git, GitHub, Jira, Conda, Unix, Bash, Docker, Tableau, eClinicalWorks (EMR)

EXPERIENCE

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

- Develop, test, deploy and maintain custom Python applications that seamlessly integrate with EMR systems, streamlining healthcare workflows (e.g. patient schedule creation, intake distribution, billing, secure file encryption) and significantly improving operational efficiency by saving clinical staff 14+ hours weekly.
- Serve as the primary EMR Administrator and Analyst, overseeing system/build configuration, workflow optimization, user access control, and troubleshooting to ensure seamless clinical operations.
- Create and manage comprehensive documentation for custom Python applications and EMR system configurations, ensuring end-user proficiency and streamlined clinical workflows.
- Manage critical vendor relationships, acting as the primary liaison for vendors and the EMR provider to troubleshoot issues, coordinate updates, and advocate for system improvements.
- 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 significantly improved data storage and retrieval time by 2x and directly contributed to increased clinical productivity.

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

- Apply Reinforcement Learning from Human Feedback (RLHF) to enhance ML model efficiency.
- Debug and optimize code, ensuring compliance with ethical standards in data-sensitive environments.

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 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 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 with 98% accuracy and offers personalized healthy habit recommendations based on user interests and location.
- Built a backend Random Forest machine learning model in Java to predict social media addiction given user-provided information, including social media habits and socioeconomic background.

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.