Matteo Mollano

Brooklyn, New York
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Education

Hofstra University – MS in Computer Science, GPA: 3.92 September 2024 - May 2025
Hofstra University – BS in Computer Science & Cybersecurity: GPA: 3.90 August 2020 - May 2024
Relevant Coursework: Data Science, Machine Learning, Data Mining, Data Warehousing, Database Management, Probability & Statistics, Calculus II, Software Engineering, Data Structures & Algorithms, Computer Networking
Certifications: AWS Certified Cloud Practitioner, Kaggle Pandas, Kaggle Intermediate Machine Learning

Skills

Programming Languages: Python, SQL, R, Java, JavaScript, Bash
Analytics & Visualization: Pandas, NumPy, scikit-learn, Matplotlib, Seaborn, BeautifulSoup, Selenium
Data Engineering & Cloud: AWS (EC2, S3, Lambda), GCP, Git, Linux, ETL pipelines, Flask, Excel
Databases: AWS RDS, MySQL, PostgreSQL, SQL Server, MongoDB

Experience

Coding Instructor, theCoderSchool – Roslyn, New York October 2022 – Present
- Led a machine learning project predicting BMI levels using logistic regression and hyperparameter tuning, achieving 96% accuracy by leveraging health-related features like physical activity frequency and mode of transport
- Guided students in developing a Python data pipeline to web scrape country-level data using BeautifulSoup, transform the data into JSON format, and write it to an external file, reducing manual data collection time by 30%
- Migrated client contact data (phone, email, and address) into MySQL using Python, enabling digital storage, reducing lookup time by 40%, and improving data consistency and accessibility
- Developed a Python Flask web API to serve 10-day weather data from api.weather.gov, including temperature, wind speed/direction, and forecast details, automating weather reporting for 100+ users

Cyber Security Intern, PKF O'Connor Davies – New York City, New York June 2023 – August 2023
- Developed automated email alerts for cloud virtual machines running over 2 hours using Python, AWS Lambda, and GCP Cloud Functions, notifying the cyber team to shut down idle instances and reduce cloud costs
- Designed a Python terminal tool that simplified Hashcat usage and significantly accelerated password-hash cracking
- Created a custom Kali Linux OVA image with preloaded pentesting tools using bash scripts and VMware ovftool.exe, reducing new environment setup time from hours to under 10 minutes for client engagements
- Created a GitHub Pages internal-wiki to document 100+ pentesting commands for FTP, DNS, RDP, SMB, SMTP, and SSH
- Hosted a legitimate website through AWS to improve domain reputation for simulated phishing attacks

Projects

RAG Chatbot for US Bancorp | *LangChain, ChromaDB, Ollama, BeautifulSoup* June 2025 – October 2025
- Designed a RAG Chatbot to answer questions on US Bancorp using earnings calls, SEC filings, LLMs, and vector search
- Web scraped earnings call transcripts with BeautifulSoup and extracted text from SEC filing PDFs using PyPDF
- Used SentenceTransformers and LangChain to chunk documents and store embeddings in ChromaDB; retrieved top relevant chunks via cosine similarity and generated responses using an Ollama LLM

ETF Recommender System | *Pandas, ETL, BeautifulSoup, MongoDB* March 2025 – May 2025
- Built an ETL pipeline to web scrape ETF holdings data from multiple sources using BeautifulSoup, cleaned the data with Pandas, and stored it in MongoDB for JSON-based storage and simplified cloud access
- Developed an ETF recommender system using Jaccard and Cosine Similarity to rank ETFs by portfolio overlap and weighted holdings, enhancing recommendation quality and providing portfolio similarity insights

Machine Learning Network Analyzer | *Scapy, MariaDB, scikit-learn, React, Flask, Mapbox* January 2025 – May 2025
- Designed a machine learning system to detect malicious network traffic using Scapy, MariaDB, and scikit-learn
- Configured a RaspberryPi as a WiFi access point to capture network traffic for analysis using dnsmasq and hostapd
- Developed machine learning models to detect DoS attacks, achieving high accuracy while minimizing false positives
- Designed a React UI to visualize real-time network traffic, model predictions, and IP-based geolocation with Mapbox