Giovanni **Cornejo**

Computer Engineering · Data Science

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Education

University of Florida

Gainesville, FL

Master of Science in Electrical and Computer Engineering

Aug 2024 - May 2026 (Expected)

- Area: Signals & Systems; Tracks: Signal Processing, Machine Learning & AI
- Coursework: Digital Signal Processing, Fundamentals of Machine Learning, Hardware Security and Trust

Bachelor of Science in Computer Engineering

Aug 2019 - May 2023

- Cumulative GPA: 3.62/4.00; cum laude
- Coursework: Performant Programming in Python, Signals and Systems, Operating Systems, Computer Engineering Design

Skills

Programming Languages:	C/C++, Python, HTML, CSS, JavaScript, SQL, Rust, MATLAB
Libraries and Frameworks:	scikit-learn, pandas, numpy, matplotlib/seaborn, Django, Flask
Tools:	Git, Jupyter Notebook, Visual Studio, Bash, Microsoft Office

Experience

Publix Super Markets

Gainesville, FL

Front Service Clerk

Sep 2021 - Jul 2023

- Provided premier customer service, ensuring a positive experience for all customers.
- Handled transactions and customer interactions with professionalism and attention to detail.
- Maintained a clean and organized work environment, ensuring adherence to safety standards.
- Applied proactive measures to reduce shrinkage and ensure operational efficiency.

University of Florida

Gainesville, FL

Teaching Assistant

Feb 2023 - May 2023

- Conducted accurate and efficient data entry and grading for student assignments.
- Upheld standards of data integrity and privacy.
- Monitored student progress and assisted in accomplishing established learning objectives.
- Analyzed the efficacy of materials taught based on student performance.

Knack

Remote, USA

Freelance Tutor

Nov 2020 - Jun 2021

- Provided customized tutoring sessions in calculus and programming, achieving a 5/5 rating.
- Developed unique lesson plans tailored to individual student needs, significantly enhancing academic performance.
- Improved student understanding through clear, effective communication techniques.
- Helped raise one student's grade from C+ to A- in Calculus 1 and in maintaining an A in Calculus 2.

Projects

Undergraduate Capstone: Qtune Automatic Guitar Tuner

Circuit Design, Embedded Systems, CircuitPython

- Utilized an Adafruit Feather RP2040 to create a tuner that analyzes the frequency of guitar string vibrations.
- Implemented intelligent circuit design and a piezo sensor for precise frequency measurement within ± 0.5 Hz.
- Developed a system for instant adjustments using servo motors attached to each tuning peg.

Spam Message Classifier

Python, Jupyter Notebook, scikit-learn, nltk

- Conducted comprehensive exploratory data analysis revealing class imbalance, addressed using random oversampling.
- Developed a supervised learning model achieving 99.95% accuracy using TF-IDF vectorization and Random Forest.
- Evaluated model performance with confusion matrices and ROC curves, ensuring robust classification metrics.

Moodipy: Sentiment-Based Spotify Playlist Generator

Python, Spotify API, xserver, Qt

- Applied sentiment analysis techniques to generate Spotify playlists based on user input and liked songs metadata.
- Spear-headed the comparison of song audio features against emotional output to determine which songs matched the user's emotion.
- Predicted songs likely to rise in popularity from newest songs of the week and current top 50 Global Songs.