JR Concepcion

Howell, NJ ‖ jr1concepcion@gmail.com ‖ (732)-567-8655 ‖ www.linkedin.com/in/jrconcep ‖ jrconcepcion.com

EDUCATION

Lehigh University — Bethlehem, PA

MS Financial Engineering **Aug 2025 - Dec 2026**

- ***Concentration*****:** Quant Risk

William Paterson University, Cotsakos College of Business — Wayne, NJ

BS in Finance, BA in Economics, Minors in Mathematics & Statistics **Aug 2021 - Dec 2024**

- ***Concentration*****:** Fintech, Research & Data Analysis

Relevant Coursework: Calculus, Financial Optimization, Machine Learning, Random Processes, Time Series & Forecasting

WORK EXPERIENCE

Captive Desk Intern ‖ Generali ‖ Morristown, NJ **May 2024 - Present**

- Validate yearly and quarterly reinsurance data within the business deadlines to Generali's central office.
- Built Excel trackers and interactive dashboards to centralize account data, allowing account managers to monitor reinsurance positions and report deadlines at a glance.
- Collaborate with a manager to automate monthly and quarterly reports utilizing VBA and Salesforce.

Technology Consultant & Tutor ‖ WPU Global Business Financial Institute ‖ Wayne, NJ **Dec 2022 - Dec 2024**

- Provided guest lectures and training workshops for William Paterson students.
- Provided one-on-one tutoring to over 75 students in Python, R, and Bloomberg.

Python Developer - (Freelance) ‖ Nash Partners ‖ New York, NY **Oct 2024 - Nov 2024**

- Developed a Python-based desktop app to scrape and display up to 2000 SEC filings with automated data retrieval and filtering for a team of traders.
- Packaged the app as a standalone executable with Py2Exe, integrating financial data from a live database.

Research and Projects

Optimal Option Rebalancing – Lehigh University/Point72 **Dec 2025 - Present**

- Implemented a Crank-Nicolson finite difference scheme with PSOR to price American options, enforcing the early exercise constraint.
- Developed and tested single-stock/option rebalancing simulations, modeling delta and delta-gamma hedging strategies to quantify hedge effectiveness under rebalancing.
- Formulated the rebalancing problem as an impulse control problem, establishing the theoretical framework for optimal intervention timing subject to transaction costs.
- Presented project at Quaint Quant Conference, SMU Cox School of Business.

PA-100 Index – Lehigh University/CBOE **Aug 2025 - Present**

- Rebalance the index with an updated registry of Pennsylvania companies, an updated divisor, and adjusted market caps utilizing CBOE market data.
- Automated the daily index value calculation and visualizations utilizing Streamlit, an SQL Database, and GitHub Cron Jobs.
- Lead transition to storing all values in a SQL database to optimize data management and storage for future groups.

Open-Sourced 'Greeks' Options Python Package – Developer/Maintainer **Nov 2024 - Present**

- Developed greeks-package, a Python library for calculating first-, second-, and third-order Black-Scholes Greeks (Delta, Gamma, Vega, Theta, Rho, etc.) for European options using NumPy/SciPy.
- Enabled efficient option chain downloading from Yahoo Finance for multiple tickers in a singular pull.
- Created interactive 3D visualization tools with Plotly for Greeks surfaces, implied volatility, and open interest, optimized for performance with vectorized operations.

Open-Sourced 'fin-eda' Python Package – Developer/Maintainer **Mar 2026 - Present**

- Developed fin-eda, a Python library delivering a full quantitative tearsheet for any stock ticker or price series, computing 60+ metrics across returns, risk, drawdowns, volatility, and liquidity using Pandas, NumPy, and SciPy.
- Engineered benchmark analytics including annualized capture ratios, Jensen-style excess returns, information ratio, and beta/correlation with automatic SPY data fetching and index alignment via yfinance.
- Designed for accessibility, enabling non-technical users to generate quantitative results with a single function call.

Technical Stack

Python, R, RStudio, SQL, GitHub, Tableau, Cursor, ChatGPT, Claude Code