

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 — 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

Quantitative Derivatives Modeling Intern || Lincoln Financial || Radnor, PA

Jun 2026 - Present

- Built a live Greeks monitoring tool with Python, VBA, xbbg/Bloomberg, and an in-house Python package, giving traders real-time exposure across the derivatives book.
- Back-tested a forwards-based carry trade strategy to hedge repo rate across differing tenors within the derivatives book.
- Worked to replace legacy VBA Greeks functions with xlwings-based Python UDFs, integrating the in-house Python package directly into Excel for faster, more maintainable Greeks calculations.

Captive Desk Intern || Generali || Morristown, NJ

May 2024 - May 2026

- Built Excel trackers and interactive dashboards to centralize account data, allowing account managers to monitor reinsurance positions and report deadlines at a glance.
- Collaborated with a manager to automate monthly and quarterly reports utilizing VBA and Salesforce.

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 pricer with PSOR for American options, enforcing the early exercise constraint, and built rebalancing simulations modeling delta-gamma hedging strategies to quantify hedge effectiveness.
- Transitioned the project from simulated to live minute-level data, engineering the data pipeline and re-architecting Greeks/volatility calculations with GPU computing (CUDA, CuPy, Numba, Polars).
- Presented findings at the 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 library for pricing first, second, and third-order Greeks for European and American options.
- 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 tear sheet for any stock ticker, price series, or portfolio, computing 50+ metrics across returns, risk, drawdowns, volatility, and liquidity using Pandas, NumPy, and SciPy.
- Designed for accessibility, enabling non-technical users to generate quantitative results with a single function call.

Open-Sourced 'exotics' Python Package – Developer/Maintainer

Jun 2026 - Present

- Built exotics, a library covering three of the most common path-dependent option types: barrier, Asian, and cliquet options, each priced with the specific numerical method.
- Implement strict validation and error handling, ensuring bad inputs and edge cases are caught early and handled properly.

Technical Stack

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