

# CHASE GILLIS

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## EDUCATION

**NEW YORK UNIVERSITY**, *New York, NY | Madrid, Spain*

Sep 2021 - May 2025

**Bachelor's Degree** in Computer Science, Minor in Data Science

- GPA: 3.3 / 4.0 | 3x Dean's List, IAAC Student-Athlete All-American, Sommer's & Florida Bright Futures Scholarships
- Coursework: Algorithms, Stats, Data Structures, Linear Algebra, Calc II, Causal Inference, Discrete Math, Data Analysis, Econ
- Organizations: Zeta Psi Fraternity (President), Tech@NYU (Project Lead), Google Developer Student Club (Marketing Manager), Tech Treks, Bugs@NYU, NY Dance Marathon, P2B1 First-Gen Students, Varsity Wrestling, Stern Rugby

## EXPERIENCE

**U.S. CENTURY BANK**, *Software Engineer & Data Scientist*

May 2024 - Present

- Designed a profitability model using SQL, Python, and Power BI to rank accounts and advise changes, boosting revenue by 10%
- Developed a cybersecurity system for file integrity verification through hash comparisons, detecting tampering in ~1% of files
- Implemented Python archive system to relocate files older than 7 years, freeing 1 TB of disk space in a day, boosting efficiency

**JPMORGAN CHASE & CO. VIRTUAL EXPERIENCE PROGRAM**, *Quantitative Researcher*

Jul 2024 - Aug 2024

- Built a natural gas price forecast model, merging linear and sinusoidal regression for trend visualization, achieving 90% accuracy
- Priced a commodity storage contract by analyzing trading schedules, fees, and cash flow, optimizing contract value by 10%
- Estimated default probabilities and bucketed FICO scores using logistic regression and MSE, improving risk assessment by 10%

**NYU 404 FITNESS**, *Supervisor & Data Scientist*

Sep 2022 - Aug 2024

- Optimized gym hours and staffing with Python and Pandas, aligning schedules with budget constraints and operational needs
- Reduced theft by ~75% through a strategic anti-theft campaign involving improved signage, rotation timing, and staff relocation
- Led a team of 50 attendants as the youngest supervisor; duties included managing hiring/training, scheduling, and enforcing rules

**SCALE AI**, *Software Engineer - AI Consultant*

Jan 2024 - Apr 2024

- Reviewed AI-generated code in various languages for compliance with company standards, ensuring quality and accuracy
- Enhanced AI model performance by implementing efficient algorithms, improving content generation accuracy by ~12%

## PROJECTS

**BITCOIN FORECAST LSTM MODEL**

Jul 2024 - Aug 2024

- Built an LSTM neural network model to predict Bitcoin prices and ROI, finishing top 25% of the Trilemma Capital tournament
- Trained and optimized the model on historical closing prices using Adam optimizer and MSE loss function over 100 epochs

**PAIRWISE TRADING ALGORITHM & ENGINE**

Jun 2024 - Jul 2024

- Developed Full-Stack backtesting engine with Alpaca API and Streamlit using correlation, cointegration, and stationarity
- Created visualizations for price ratios, moving averages, and z-scores; achieved Sharpe Ratio of 1.48 with consistent returns

**PRECEDENT PARSER**

Oct 2023 - Dec 2023

- Led a team to develop a web scraper and website using Python and HTML/CSS, enhancing legal research for case precedents
- Utilized OpenAI and ScrapeOPS APIs to fetch data, providing citations, summaries, probabilities, and strategic insights for cases

## ADDITIONAL INFORMATION

**Technical Skills:** Python (Pandas, Sklearn), C/C++, Java, x86 Assembly, SQL, Power BI, Excel, Bash, Git, AWS, JS/HTML/CSS

**Certificates:** Machine Learning on AWS, Bloomberg Market Concepts, Lyft Software Engineering Forage, CPR, AED

**Languages:** English (Native), Spanish (Conversational)

**Interests:** Wrestling (State Champion, 5x All-American, 2 Team State Titles), Bullet Chess, Yoga, Fishing, Spikeball, Motocross