

CHASE GILLIS

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EDUCATION

NEW YORK UNIVERSITY, Courant Institute of Mathematical Sciences

Sep 2021 - May 2025

Bachelor's in Computer Science, Minors in Mathematics & Data Science

New York, NY | Madrid, Spain

- **Awards:** Dean's List 3x, Student-Athlete Honor Roll, First-Generation Student, Sommer's & Florida Bright Futures Scholarships
- **Courses:** Algorithms, Data Structures, Operating Systems, Cryptography, Probability, Linear Alg, Calc I-III, Predictive Analytics
- **Organizations:** Zeta Psi (President), Tech@NYU (Project Lead), GDSC (Brand Lead), Quant Finance Society, Men's Wrestling

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, advising changes, boosting revenue by 10%
- Developed a cybersecurity system for file integrity verification through hash comparisons, detecting tampering in ~1% of files
- Automated Python archival system, relocating files older than 7 years, freeing 1 TB of disk space, and improving efficiency 30%

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, increasing 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

- Refined gym hours and staffing with Python and pandas, improving our efficiency by 20% and aligning with budget constraints
- 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, managing hiring, training, scheduling, and enforcing operational policies

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 model to predict Bitcoin prices with 85% accuracy, ranking in the top 25% of 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 a backtesting engine using Alpaca API and Streamlit, achieving a Sharpe Ratio of 1.48 and 5% weekly returns
- 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, streamlining legal research for case precedents
- Utilized OpenAI and ScrapeOPS APIs to fetch data, providing citations, summaries, probabilities, and strategic insights for cases

ADDITIONAL INFORMATION

Programming Languages: Python (Pandas, Sklearn), C/C++, Java, x86 Assembly, SQL, JavaScript/HTML/CSS

Tools & Frameworks: AWS, Power BI, Excel, Bash, Git, Streamlit

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

Languages: English (Native), Spanish (Conversational)

Interests: Wrestling (3x State Champ, 5x All-American, NHSCA Academic AA), Chess, Poker, Fishing, Spikeball, Motocross