Peter Zheng

217-419-8847 | pczheng8@gmail.com | linkedin.com/in/peter-c-zheng

Education

Cornell University Ithaca, NY

B.A. in Computer Science and Mathematics | ***GPA: 4.0/4.0*** *Expected May 2026*

- Relevant Coursework: Object-Oriented Programming and Data Structures, Analysis of Algorithms, Functional Programming, Probability, Discrete Mathematics, Linear Algebra, Operations Research
- Campus Involvement: Cornell Quant Fund, Cornell Data Science, Chess Club (Tournaments Lead), Poker Club, Math Club

Awards

- Jane Street First-Year Trading and Technology Program (FTTP)
- Susquehanna International Group (SIG) Discovery Day
- Citadel & Citadel Securities Summer Invitational Datathon: 2nd Place, $2500 prize
- Akuna Capital Invitational Quant Trading Challenge
- Math: Stanford Math Tournament Top 15, 3-time American Invitational Mathematics Examination (AIME) Qualifier
- Programming: 2-time Meta Hacker Cup Round 2 Qualifier, USA Computing Olympiad (USACO) Gold Division Qualifier
- Chess: USCF rating 2179, 33rd in the US, top 1% of all players. Former #1 UltraBullet player in the world

Experience

Software Engineer Intern May 2024 – Aug. 2024

HP *Vancouver, WA*

- Built a retrieval-augmented generation (RAG) website using Python and Flask, including over 1 million internal documents
- Containerized application with Docker for streamlined deployment
- Developed an Azure OpenAI wrapper and pipelined unstructured document vector data using PostgreSQL and pgvector

Software Engineer Dec. 2023 – Jan. 2024

GradeWiz *Ithaca, NY*

- Streamlined deep learning image segmentation using YOLOv5 and PyTorch, enhancing the grading process by identifying individual questions on students' exams. Improved mean average precision (mAP) by 35%
- Leveraged Mathpix API to convert image segments into LaTeX using optical character recognition (OCR)
- Fine-tuned GPT-4 on past exams, improving grading accuracy by 25%

Computer Vision Research Intern June 2022 – July 2022

UC Davis *Davis, CA*

- Developed object detection models to forecast agricultural yield using YOLOv5 and PyTorch; improved mAP by 31%
- Built and trained MobileNetV3 model for image classification; achieved an accuracy of 94%
- Authored a research paper and presented findings at a campus-wide symposium. Program had an 8% acceptance rate

Data Mining Research Intern Oct. 2021 – Feb. 2022

Texas State University *San Marcos, TX*

- Built machine learning pipeline to analyze big data (3 billion entries) from Microsoft Azure virtual machines
- Preprocessed and visualized the Microsoft cloud computing data in Orange and used machine learning algorithms such as k-means clustering to draw insights into companies' cloud waste
- Pioneered innovative recommendation algorithm based on rightsizing; achieved 49% in cost savings
- Authored a research paper and presented findings at a campus-wide symposium. 20% of interviewees accepted

Projects

Crypto Momentum Trading May 2024 – June 2024

- Developed a momentum-based trading algorithm for a diversified portfolio of 10 cryptocurrencies
- Analyzed and optimized portfolio rebalancing frequency and rolling return windows to maximize returns
- Implemented backtesting to evaluate performance; achieved out-of-sample Sharpe ratio of 1.46
- Achieved returns of 170% on simulated trading over a 24-month period using data from Yahoo Finance

Jane Street ETC Trading Bot March 2024 – March 2024

- Developed arbitrage and market-making algorithms in Python for trading on a mock exchange containing bonds and ETFs
- Placed top 10 in the advanced bracket of Jane Street's Electronic Trading Challenge (ETC)