

Penelope Cai

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EDUCATION

University of Illinois Urbana-Champaign

Master of Science in Accounting *CPA Candidate*

Relevant Coursework: Accounting Analysis, Federal Taxation, Auditing, Data Analytics in Acct

Research Interests: Financial reporting, capital markets, valuation, and empirical accounting research

Champaign, Illinois

Jun 2025 – Dec 2026

Nanjing University of Posts and Telecommunications

B.Ec. in Financial Engineering

- **Relevant Coursework:** Applied Time Series Analysis, Quantitative Finance, Statistics, Accounting, Macroeconomics, Econometrics
- **Award:** University-level Excellence Scholarship for 4 consecutive years

Nanjing, China

Sep 2020 - Jul 2024

RESEARCH EXPERIENCES

Momentum and Reversal Effects in China's Stock Market

Undergraduate Thesis

Jan 2024 – Jun 2024

- Analyzed momentum and reversal effects in China's stock market using data from 844 Shanghai A-Share stocks (2018–2024), using Python for data cleaning and processing to ensure high data quality.
- Constructed 49 momentum portfolios and evaluated returns with CAPM and Fama-French models, identifying significant mid-to-long-term reversal effects and investor overreaction as key drivers of market behavior.
- Recommended enhancing transparency, optimizing trading mechanisms, and adopting reversal-based strategies to support market development and improve investment decisions.

AI-Driven Market Analysis for Senior Smart Wearable Devices

Student Innovation and Entrepreneurship Competition

Jun 2022 – Jun 2023

- Led financial and data analysis for market research on senior smart wearables, generating insights to support product development and marketing strategy.
- Designed a 29-item survey, collecting 108 valid responses from diverse demographics. Utilized Python for data cleaning, improving data consistency by 55%, and visualized results using Matplotlib and Seaborn.
- Conducted statistical analyses, including correlation and regression, and built machine learning models to segment consumers, providing actionable insights for product positioning and targeted marketing strategies.

Quantitative Analysis of Bank of China Stock Risk Using Econometric Models

Course Project: Econometrics

May 2022

- Collected and processed weekly closing prices (2008-2022) for Bank of China and the Shanghai Composite Index using Stata.
- Estimated stock beta coefficient and intercept using OLS regression, confirming the stock's defensive characteristics ($\beta < 1$).
- Evaluated model assumptions and identified limitations, including heteroskedasticity and non-normal residuals.

PROFESSIONAL EXPERIENCES

Volunteer Income Tax Assistance (VITA)

Tax Preparer

Champaign, IL

Jan 2026 – April 2026

- Prepared and reviewed 30+ individual tax returns using TaxSlayer, working with real financial data and applying tax rules to ensure accuracy
- Collected and verified financial information through client interviews, resolving inconsistencies and improving data reliability
- Applied tax credits and deductions based on client data, demonstrating how reporting choices affect outcomes

Liangxi Certified Public Accountants Co., Ltd.

Audit Intern

Wuxi, China

Jan 2022 – Apr 2022

- Audited government subsidy funds for five manufacturing enterprises in the Wuxi Industrial Park five manufacturing enterprises, completing voucher sampling, inventory checks, document verification, and submission preparation within 10 days.
- Utilized Excel (VLOOKUP) to match 200+ purchase invoices with inventory records, improving efficiency by 5x and ensuring data accuracy.
- Conducted testing for tax certification audits, including sampling and reviewing over 500 vouchers, managing domestic and international confirmation letters, and performing calculations with high accuracy.
- Organized, bound, and archived annual audit reports for 10 companies in compliance with documentation standards.

SKILLS

Programming: Python, R

Data Analysis: regression, time series, data cleaning

Tools: Excel, Stata, Power BI

Languages: Mandarin (native), English (fluent), Korean & Japanese (elementary)