Gedian Wang

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EDUCATION

University of California, Los Angeles (UCLA) — Los Angeles, CA, USA
Master of Quantitative Economics (STEM) – Financial Economics; *GPA: 3.7* — 09/2020 – 06/2022
- Selected courses: Data Science for Financial Engineering (4.0/4.0), Machine Learning I (4.0/4.0)

Oklahoma State University — Stillwater, OK, USA
B.S. in Agricultural Economics; *GPA: 4.0* — 08/2018 – 12/2019
- Honor: President's Honor Roll

China Agricultural University — Beijing, China
B.M. in Agri-Forest Economic Management; *GPA: 3.5* — 08/2016 – 06/2018
- Honor: Beijing Excellent Graduate (top 2%), *1st* level scholarship in social work (top 1)

WORK EXPERIENCE

Aurora Energy Research ("AER") — Oxford, United Kingdom
Analyst – Pan-European Research — 05/2023 – Present
AER is a leading global provider of data-driven insights and analytics for strategic and investment decisions in the energy sector.
- **Research Project** (Battery Market Attractiveness Report (2024))
  - Quantitatively analysed and compared the prospects of developing storage batteries in 14 European countries.
  - Authored 2 sections of a 5-section research report. These sections included insights into revenue streams from various electricity markets in each country, projected IRRs for developing batteries in a specific year, and potential risks and measures to improve profitability, such as repowering.
- **Research Project** (Renewable Asset Hybridisation Report)
  - Investigated regulatory policies for renewable asset hybridisation in four out of nine countries selected by a client.
  - Conducted research based on four metrics: regulatory framework, subsidies and incentives, grid integration, and market access and revenue potential. Authored 94 pages of a 283-page research report and addressed the client's subsequent questions.
- **Market Modelling & Forecasting** (Imbalance Costs for 2024 - 2060)
  - Developed a Python algorithm to predict renewable generation forecasting errors. Incorporated forecasted renewable generation and aFRR prices to estimate electricity imbalance costs for a specific country.
  - Managed Aurora's forecast of imbalance cost outputs for 22 European countries, updating them biannually.
- **Technical assumptions** (Battery CAPEX, OPEX, degradation curves)
  - Monitored market prices for materials and components of grid-style batteries. Managed Aurora's assumptions for battery CAPEX and OPEX, updating them twice per year. Provided consistent responses to external client inquiries.
  - Standardised battery degradation curves across multiple business scenarios, ensuring uniformity for all European offices.

Connective Capital Management ("CCM") — Palo Alto, CA, USA
Research Analyst — 07/2022 – 12/2022
CCM is a Silicon Valley-based Hedge Fund company. It mainly focuses on technology companies in global secondary markets.
- **Investment Research** (Nuclear Power Industry)
  - Conducted fundamental research on the nuclear power industry to identify potential investment opportunities (RTO, PIPE) in the Small Modular Reactor (SMR) subsector. Mapped SMR companies in North America and Europe. Conducted research meetings with 9 companies' management teams and bankers. Assisted in the due diligence process with the tech advisor.
  - Refined the investment thesis in clean energy, focusing on uranium deposits & mines, waste disposal, historical uranium shortage, SMR technology, and the impact of new policies and events in 2022.
- **Conducted Trade Strategies** ("Hard-to-Borrow", "FADE", "SPAC", "Earnings", Position Cleanup)
  - Developed a quantitative trading strategy, aiming to generate intraday alpha from stocks with ultra-high hard-to-borrow rates. Conducted Python-based back-testing, achieving 2.71% average return per intraday trade (median PnL 3.4% & hit rate 61%).
  - Conducted research on equities with abnormal fluctuations and provided daily trade suggestions based on existing strategies. Recommendations were based on news analysis and multiple quantitative indicators.
  - Monitored current positions and provided suggestions for adjustments during post-earnings or post-fading periods.
- **Database management** (Cleaned MySQL database, Deals Screening, Built Google Sheet Add-ins)
  - Used Bloomberg Terminal to search for potential companies based on the blurry information provided by the bankers.
  - Maintained, updated, and cleaned CCM's MySQL database using DataGrip. Kept consistency among all records in the tables.
  - Made a Google Sheet Add-in with the developer. The add-in can let a user write a SQL query in one cell directly.

MiraclePlus (former Y Combinator China) — Beijing, China
Investment Analyst — 04/2021 – 08/2021
MiraclePlus is a Venture Capital company that invests in about 100 early-stage high-tech startups every year.
- Independently sourced 100+ companies for portfolio construction. Collaborated with these startup founders on their business models, strategies, and financial situations. 24 of them passed the committee meeting, and 6 entered the final due diligence.
- Conducted due diligence on 5 companies. Investigated their patents, legal documents, backgrounds, competitors, and fundraising. Forecasted the prospective market size, environment, future returns, and feasibility of their new business ventures.
- Collaborated with MiraclePlus's co-founders to identify ways to support the operations and management of portfolio companies.

RESEARCH EXPERIENCE

13ᵗʰ International Conference on Restructuring of the Global Economy (ROGE) 2024 Oxford, United Kingdom
<Reviewing Egypt's Food Subsidy Scheme: Addressing New Challenges for Food Security> 08/2024
- Authored and published the following conference paper as the first author.
  - Wang, G. (2024). Reviewing Egypt's food subsidy scheme: Addressing new challenges for food security. *The Business and Management Review, 15*(1), 173-182. Conference proceedings of the Centre for Business & Economic Research, 13th International Conference on Restructuring of the Global Economy (ROGE-2024), Oxford, United Kingdom.
- Reviewed the literature on Egypt's food subsidies. Assessed the historical progression and challenges of various food subsidy schemes since 1970. Discussed their socio-economic impacts and the financial burdens they impose on the government.
- Examined the impacts of external factors such as the establishment of the Grand Ethiopian Renaissance Dam, the Russia-Ukraine war, and reduced revenues from the Suez Canal on the efficiency and sustainability of Egypt's food subsidies.
- Proposed innovative measures, including international collaboration, technological advancements, and a supply chain supervision system, to enhance the efficiency of food subsidies and mitigate the financial burdens on the Egyptian government.

Master's Graduate Capstone Project Los Angeles, CA, USA
<Carry Trade with SGD/USD: Comparing Two Exchange Rate Forecasting Models> 03/2022 – 05/2022
- Developed a traditional Real Interest Differential (RID) model and a Long Short-Term Memory (LSTM)-Based Time Series model to predict SGD/USD exchange rates using Python.
- Evaluated the performance of these two models using metrics including Mean Squared Error (MSE), Mean Absolute Error (MAE), R-squared, Theil's U, and Directional Accuracy (DA).
- The results proved that an LSTM network with given inputs and fine-tuned parameters can demonstrate significantly better performance in predicting the movement direction of exchange rates, with 57.14% directional accuracy. In contrast, the RID model achieved only 50% directional accuracy, which is no better than a random walk process.
- Designed a carry trade algorithm based on predicted exchange rates, achieving a compounded return in back-testing that surpassed the S&P 500 index.

AGEC3213 Quantitative Methods in Agricultural Economics Stillwater, OK, USA
Teaching Assistant 08/2019 – 12/2019
- Assisted students with Excel tasks during lab sessions. Provided grading support for assignments.
- Collaborated with the professor to enhance the overall learning experience.

Oklahoma Association of Electric Cooperatives (OAEC) Stillwater, OK, USA
Research Assistant <Economic Impact of Oklahoma Agricultural Cooperatives> 02/2019 – 05/2019
- Conducted research on the economic impact of Oklahoma's rural electric cooperatives and agricultural cooperatives over the past decade. The research was published in a local journal.
- Analysed financial statements of over 30 local cooperatives. Summarized and calculated OAEC's direct and indirect impacts.

INTERNSHIPS & ACTIVITIES (Selected)

Trustee | **International College Beijing - British Alumni Association** (*China Agricultural University*) 10/2023 – Present
Intern | **ByteDance – TikTok** (*International Business Analysis*) 07/2020 – 09/2020
Intern | **JD.COM | Department of Strategic Investment** (*Corporate Venture Capital*) 03/2020 – 05/2020
Intern | **ZGC River M&A Research Institute** (*Goodwill Impairment Analysis*) 07/2019 – 08/2019

SKILLS & QUALIFICATIONS & INTERESTS

Languages
- English (fluent), Mandarin (native), Arabic (currently learning)

Technical Skills
- *Programming* | SQL, R, Python (Machine Learning, Econometrics Analysis), Excel – VBA
- *Microsoft Tools* | PowerBI, PowerPoint, Excel, Word
- *Adobe Tools* | Photoshop, Illustrator, After Effects
- *Financial Analysis* | Bloomberg Terminal, Capital IQ, CAPM, DCF

Credentials
- International Society of Sustainability Professionals – Sustainability Excellence Associate (ESG)
- Chinese Sports Agent (Lv. 3)

Interests
- Self-driving (Had been a commercial driver with over 50,000 km of commercial operation experience in California, USA)
- Travel (13 countries)
- Urheen (an instrument, had played in the Golden Hall Vienna)
- Lure Fishing