Kaiwen Shi

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EDUCATION

The University of Chicago **Chicago, IL**
Master of Science in Financial Mathematics *Sept 2024 - Dec 2025*
- **Courses**: Option Pricing, Portfolio & Risk Management, Computing for Finance in C++

University of Wisconsin - Madison **Madison, WI**
Bachelor of Science in Computer Science (Honors), Data Science, Mathematics *Sept 2020 - May 2024*
- **Courses**: Artificial Intelligence, Big Data Systems, Data Structure & Algorithms, Differential Equations, Linear Algebra, Machine Learning, Multi-variable Calculus, Optimization Theory, Probability & Stochastic Process

SKILLS

Technical & Programming: Python, Java, R, C, C++, C#, Linux/Unix, SQL, MATLAB, Excel VBA, Docker, SpringBoot, Kafka, Pandas, PyTorch, sklearn, numpy, statmodel
Commercial & Documenting: MS Office, Excel, Tableau, Confluence, JIRA, Bloomberg, LaTeX, Markdown
Select Project Demos: https://github.com/jsswd888/Select_Projects

WORK EXPERIENCE

Harvest Fund Management **Beijing, China**
Quantitative Analyst Intern *Jun 2024 – Aug 2024*
- Built automated pipeline generating portfolio monitoring dashboard in Python, performed data cleaning and analysis for 448 funds' (total AUM \$41B) asset valuation tables, assessed each portfolio's risk compliance
- Standardized FOF portfolios' holding private equity funds' NAV data by CSI 1000 benchmark; utilized Barra CNE6 model to calculate portfolio's sources of returns, factor exposures, and other risk and return metrics
- Developed an interactive dashboard for Selected Funds using Streamlit; displayed its risk and return metrics, growth-value factor analysis, holding assets' performance, and similar funds' return consistency comparison

W.W. Grainger, Inc. **Chicago, IL**
GTG Software Engineer Intern *Jun 2022 – Sep 2022*
- Updated Grainger.com's core search recommendations service, deployed LaunchDarkly feature toggles to replace spring-based toggles, resulting in faster and safer deployments, bringing in $40+ million in revenue
- Initialized, appended, and enhanced test suite assertions for two key end points in recommendation service API using wire mock. Resulting in higher deployment robustness and confidence
- Collaborated with the team to improve DORA metrics that measures team performances, helped improve deployment frequency through contributions as above, ensure deploy multiple times per day on average

UW-Madison Undergraduate Learning Center **Madison, WI**
Undergraduate Course Tutor *Jan 2022 – May 2024*
- Tutored over 200 students taking Abstract Data Structures, Data Modeling, and ODE classes
- Organized 8 hours of weekly tutoring session, assisting on plotting in Python / R, explaining conditional statements, implementing of abstract data structures in Java, solving higher-order differential equations etc.

RESEARCH & PROJECTS

Directed Reading Program: Nasdaq Index Prediction **Madison WI**
UW-Madison Department of Mathematics *Sep 2023 – Dec 2023*
- Scraped historical price data of Nasdaq, generated index evaluation features such as Daily Returns, Simple Moving Averages, and Relative Strength Index to train an index trending prediction model using LSTM
- Design and evaluate the model accuracy and performances through various approaches; meet with a mentor weekly to ensure rigorous coding paradigms, unit testing practices, and documentation writing

Senior Honor Thesis: User-Tailored Navigation Signboards in Augmented Reality **Madison WI**
WiNGS Lab, UW-Madison Department of Computer Sciences *Aug 2023 – May 2024*
- Designed virtual information signboards and algorithms for indoor navigation applications in EasyVizAR, deliver Augmented-Reality-based navigation assistance to first responders with user customization capability
- Generated walkable paths on the building model using Unity NavMesh when the navigation signboard is created, acquire relative direction and distance from the signboard to the destination
- Configured Unity Raycast to enable users to create navigation signboards on any walls within vision to provide clearer navigation assistance; assess signboard design user-friendliness using contextual inquiry