Dennis Kim

Fort Collins, CO • D.Kim@colostate.edu • 917-426-7463 • LinkedIn • Personal Page

PROFESSIONAL SUMMARY

Detail-oriented researcher with expertise in hypothesis testing, model validation, and statistical/computational methods. Ph.D. candidate studying sequential decision-making paradigms with training in fundamental analysis and quantitative strategy development.

SKILLS

Programming: Python, R, SQL, Java, C
Libraries: NumPy, Pandas, SciPy, scikit-learn, Keras, statsmodels, CVXPY
Quant/ML: Statistical inference, econometrics, time-series, machine/deep learning, reinforcement learning
Finance: Portfolio optimization, risk modeling, fundamental & quantitative analysis
Platforms/Other: High-performance & distributed computing, data pipelines, experiment design & validation

EDUCATION

Colorado State University — Ph.D Candidate, Computer Science (GPA: 4.0) Current
New York University — M.S., Mathematical Sciences 2021–2023
DePaul University — M.S., Computer Science (GPA: 3.7) 2019–2021

SELECTED PROJECTS

Factor Model Validation (Python): Extending Fama–French 5-factor model with a custom VIX-derived factor, validating risk premia on S&P 500 constituents.
RL for Trade Execution: Developing RL-based trading agent for multiperiod MVO
Causal Analysis for Regime Shifts: Estimating causal impact of VIX shocks on US equity returns using event studies and model validation.

EXPERIENCE

Graduate Research Assistant — HAPI Lab, Colorado State University Current
- Led a 160+-participant study on trust in AI-assisted advising, applying ANOVA and effect-size analysis.
- Support lab members on multiple projects with statistical analysis and study design, including regression modeling, experimental validation, and interpretation of results.

Student Researcher — Active Portfolio Mgmt with ML & Time-Series (NYU) 2023
- Explored RL-based trading models adapted from crypto to equities, optimizing reward functions for Sharpe and Sortino ratios.
- Conducted exploratory data analysis on equity price data to support RL model design and evaluation.

Data Scientist Intern — Woori Juntos (Remote) 2022
- Ran inferential analysis on survey data to inform campaign targeting and stakeholder materials.
- Built an NLP classifier to group free text responses, reducing the manual transcription effort by 100%.
- Advised on the construction of future surveys/questions to align responses with organization insight needs.

ML/AI Researcher & Team Coordinator — NYU AI for Scientific Research 2022
- Designed and benchmarked ML methods for sequential signal detection and prioritization.
- Coordinated a 6-person team, planned milestones, experiments, and reproducible benchmarks.

Financial Advisor — Morgan Stanley Smith Barney (Austin, TX) 2017–2018
- Built investment presentations and financial plans for 100+ clients; gathered and analyzed client data.
- Analyzed client financial data to generate model-driven asset allocation strategies.

Portfolio Manager I/Securities Sales Specialist — BOKF Financial (Houston, TX) 2014–2017
- Performed risk analysis across 299 portfolios ($280MM AUA), focusing on downside risk and emerging exposures.
- Supported trading, quantitative portfolio analysis, and IPS-compliance risk monitoring for client portfolios.
- Collaborated with internal C-suite executives and OCC regulators in the establishment of LOB protocols.

Credit Analyst II — Bank of Oklahoma, N.A. (Houston, TX) 2012–2014
- Contributed to underwriting of a $300MM syndicated loan expansion within a $1.2B package; blended fundamental analysis with monitoring.