Zhangyuan(Derrick) Xiong

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EDUCATION

University of California, Berkeley - Haas School of Business   **Expected 03 2023**
Master of Financial Engineering   *Berkeley, CA*

University of California, Berkeley, School of Information   **08 2021**
Fifth Year Master of Information and Data Science GPA:4.0   *Berkeley, CA*

University of California, Berkeley, College of Letters & Science   **05 2020**
BA degrees in Applied Mathematics & Computer Science GPA:3.6   *Berkeley, CA*
(Served as Graduate Student Instructor for CS61A: Structure and Interpretation of Computer Programs)

SKILLS & CERTIFICATIONS

Programming: Expert in Python, Proficient in Java, R, MATLAB C++, git, Familiar in C, SQL, Scheme, RISC-V
Mathematics: DL (RNN, CNN, LSTM, Transformer), Stochastic Calculus, ODE & PDE Probability Theory
Languages: English (fluent), Mandarin Chinese (Native & Fluent)

PROFESSIONAL EXPERIENCE

Goldman Sachs   **Dallas, TX**
Fall Quantitative Analyst Intern   *10 2022 - 01 2023*
- Working with model risk management group to assess consistency and validity of quantitative models for derivative evaluation and capital computation.

Appian Way Asset Management LP   **New York, NY**
Industry Project   *06 2022 - 09 2022*
- Expanded utility of HMM/regime switching model used to identify regime shifts in major macro factors.
- Implemented Log Signature Transform of time-augmented stock price paths gathered from one-minute data of top stocks in S&P500.
- Utilized data-driven clustering algorithms on generated log signatures to classify market conditions based on probability of distribution on path signatures.

MindsDB   **Berkeley, CA**
Software Engineering Intern   *05 2018 - 08 2018*
- Implemented data-collecting pipeline and built datasets with python and JavaScript containing over 250000 entries for neural network to accelerate choice of hyperparameter for MindsDB prediction model.
- Tested and improved performance of MindsDB model by 30% on manually created datasets.
- Analyzed performance of MindsDB model with data visualization tools in presentation prepared for raising capital from 10+ venture capital firms.

RESEARCH EXPERIENCE

Recession Forecasting Using Multi-Factor Probit Model   **San Francisco, CA**
Macro-Economic Researcher   *04 2022 - 10 2022*
- Pursuing a study to devise a new multi-factor dynamic probit model for forecasting recession in US under supervision of Prof Thomas Mertens, VP Financial Research, Federal Reserve Bank of SF.

UCSF - Big Data in Radiology   **San Francisco, CA**
Machine Learning Researcher   *01 2019 - 11 2021*
- Developed RetinaNet-based deep learning model to detect lung nodules and achieved a precision of 0.962 at a recall of 0.573 on the NLST test set.
- Published paper titled High Precision Localization of Pulmonary Nodules on BMC Medical Imaging.
- Implemented preprocessing tools for dicom medical images including lung segmentation and Maximum Intensity Projection for 21,082,502 data points in NLST dataset.

INTERESTS

Playing and listening to classical music, learning military and geopolitical history of modern era, skiing