BOYU FAN
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EDUCATION

University of California, Berkeley — Berkeley, CA
Declared Majors: Economics, Data Science/Declared Minor: Statistics — Aug 2021 – May 2025 (Expected)
- **GPA** 3.926/4.00
- **Selected Coursework**: Principles of Business, Multivariable Calculus, Linear Algebra and Differential Equations, Macroeconomics, Microeconomics, Concepts of Probability, Introduction to Advanced Programming in R, Computational Structures, Foundations of Data Science, Principles & Techniques of Computer Science, Data Structures, Introduction to Advanced Programming in R, Artificial Intelligence, Econometrics, Data, Inference, and Decisions, Labor Economics
- **Selected Current Coursework**: Data Science for Economics, Data, Inference, and Decisions, Concepts of Statistics

TECHNICAL SKILLS

Programming Languages: Python, Java, SQL, Matlab, LaTeX, R, Javascript
Technologies/Libraries: Pandas, Scikit-learn, Seaborn, Tidyverse, React, OpenAI, Langchain, MongoDB, DynamoDB

INTERNSHIPS

Lifewiki (Start-Up) | *Data Scientist Intern* — Sep 2022 - Present
- Performed comprehensive cohort analysis to identify user behavior patterns and trends, boosting retention rates.
- Frontend engineered on Daily Task Screen, Explore Screen, Posts Screen.
- Performing data exploration on MongoDB, enhancing our understanding of user-interested post types.
- Self-designing the 'Academic Partner' feature, integrating the current database with OpenAI API.

Deloitte | *Risk Advisory Modeling Intern* — May 2023 - Aug 2023
- Performed rigorous data cleaning and feature extraction on World Bank and IMF datasets, enhancing the quality of input for sovereign risk modeling.
- Leveraged advanced feature engineering techniques, including K-means and agglomerative clustering, and conducted univariate analysis using Somer's D, ROC, and information value.
- Constructed a sovereign risk classification model using logistic regression, decision trees, and random forests, improving risk advisory accuracy and validating the model through cross-validation.
- Streamlined data processing by proficiently using SQL for data handling and manipulation, boosting workflow efficiency.
- Significantly improved model performance, raising accuracy from 40% to 78% and enhancing risk prediction reliability.

Apple | *Data Analysis Engineering Intern* — Jul 2022 - Aug 2022
- Established successful collaboration with the Global Channel sales team, driving the development and execution of effective business and sales strategies.
- Orchestrated the design and implementation of A/B tests, utilizing one-tail hypothesis testing to scrutinize customer behavior, resulting in a significant 18% uplift in unique viewer metrics.
- Optimized sales strategies by employing a reinforcement model, achieving maximum efficiency with minimum cost.
- Skillfully collected, cleaned, and analyzed sales reports from distributors, leveraging advanced data engineering techniques to yield valuable insights.

RESEARCH

Lawrence Berkeley National Laboratory, *Research Assistant, Part-time* — Sep 2023 - Present
- Employed advanced deep learning methodologies, specifically Long Short-Term Memory (LSTM) and Conditional Recurrent Neural Networks (RNN), for time series data analysis utilizing the TensorFlow framework.
- Conducted in-depth analysis of logs in Tstat format to innovate and develop novel predictive methodologies and tools aimed at estimating and enhancing network performance.

Haas School of Business, Berkeley Operations and Behavioral Analytics Lab, *Research Assistant* — Sep 2023 - Present
- Researched modeling team collaboration using sequential decision-making and inverse reinforcement learning.
- Created a two-player game using MDP and RL to balance team and individual goals.

URAP(undergraduate research apprentice program), *Research Assistant* — Jan 2022 - May 2022
- Assisted Department of Political Science Professor Lowell Dittmer at the University of California, Berkeley.
- Conducted research on contemporary political and economic developments in Greater China.

University of Hong Kong, *Research Assistant* — Jun 2020 – Nov 2020
- Assisted Prof. Benjamin Kane, Department of Mathematics, in research on class numbers and ternary quadratic forms with congruence conditions.

TEACHING EXPERIENCES

University of California, Berkeley, *Undergraduate Course Staff* — Aug 2023 - Present
- Providing academic support in Principles & Techniques of Computer Science through tutoring, grading, and office hours.
- Served in one of the most selective academic role with direct interaction with professor.

University of California, Berkeley (Student Learning Center), *Tutor* — Jul 2022 - Present
- Tutoring students in Linear Algebra and Concepts of Statistics.
- Facilitating a supportive academic environment through learning pod tutoring sessions.

University of California, Berkeley, *Academic Intern* — Jan 2023 - May 2023
- Provided comprehensive academic support to undergraduate students, helping improve their understanding of course material;
- Held regular office hours to assist students in a one-on-one or small group setting.

EXTRACURRICULAR ACTIVITIES

Toppa (Professional development & elite mentoring community), *External Vice President* — Feb 2022 - Present
- Currently working on Mentorship Program, External Project, Speaker Series, and Sponsorship Outreach
- Developed a platform to match students with industry positions using technologies such as AWS Lambda and DynamoDB

Kenya Wildlife Research & Conservation—Lion Light, *Chief Advocate* — Jun 2019 - Present
- Installed self-designed lion lights on Kenyan field
- Published paper "How can China be part of the solution of the lion light in Kenya?" on China Development Brief
- Raised 7000$ to install 800 extra lights in Kenya; Received two thank-you letters from the local Kenya community