MING FONG

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EDUCATION

University of California, Berkeley June 2020 – May 2023
Bachelor of Arts, Physics and Computer Science *Berkeley, CA*
Cumulative GPA: 3.967
Coursework: Data Structures and Algorithms, Discrete Math, Multivariable Calculus, Linear Algebra
Activities: Student Association for Applied Statistics (SAAS), Traders at Berkeley, Capital Investments at Berkeley

EXPERIENCE

Lawrence Berkeley National Laboratory January 2021 – Present
Machine Learning Researcher *Berkeley, CA*
Deep learning for pion reconstruction in particle physics collision events in collaboration with the CERN ATLAS group
Applied graph neural networks and data engineering to high dimensional data to improve network learning efficiency
Discovered models for classification of pions with 5x better background rejection than traditional hand-tuned models

Voloridge Investment Management, LLC May 2021 – August 2021
Quantitative Research Intern *Jupiter, FL*
Portfolio holdings inference of non-transparent funds using statistical and machine learning methods
Reduced dimensionality of securities universe tenfold using correlations, regressions, and feature selection techniques
Limited turnover and applied portfolio constraints via modified Lasso, Ridge, and other regression regularizations

AI Dynamics Inc. August 2020 – January 2021
Software Engineering Intern *Bellevue, WA*
Developed a Python framework to deploy proprietary data modeling software to AWS EC2 using the Boto3 API
Saved 8+ hours per build iteration by automating the entire testing pipeline for the NeoPulse API on AWS Instances

Microsoft Corporation June 2019 – August 2019
Software Engineering Intern *Redmond, WA*
Developed an internal desktop application for the Windows Data Science team with 50+ users using C# and XAML
Designed and maintained backend SQL database tables and implemented queries and REST API endpoints

PROJECTS

Google Trends Financial Modeling
Used Google Trends data to predict ETF price movements, earning 42% returns per annum in backtesting
Implemented EDA, feature engineering, modeling, and backtesting in Python with Pandas, Scikit-learn, NumPy

Berkeley SAAS Data Science Consulting
Orbital Insight - Missing object interpolation for cloudy satalite imagery using time-series and geospatial techniques
ProducePay - Feature importance analysis and predictions for terminal and shipping price quotes of produce

Berkeley Trading Competition
Planned and moderated Traders at Berkeley's first 100-contestant West Coast Trading Competition
Developed 2 turn-based market making games with a Python Flask backend and ReactJS frontend

Citadel West Coast Regional Datathon
Modeled the effect of non-pharmaceutical interventions on COVID-19 reproduction rates in 31 European countries

Two Sigma Halite AI Programming Challenge
Bronze Medal: Ranked in the top 6% out of 1138 submissions on the global Kaggle leaderboard
Implemented creative algorithmic policies in a Python agent to compete in the Halite IV simulation environment

Berkeley SAAS Kaggle Competition
1st place solution in the Fall 2020 Berkeley Student Association for Applied Statistics internal Kaggle competition
Predicted 2017 NYC real estate sale prices using a Keras feedforward neural network in Python

SKILLS

Software Languages	Python, R, Java, C#, SQL, HTML/CSS/JavaScript
Tools	Jupyter, Linux, Windows, VS Code, Git
Interests	Table Tennis, Tennis, Cycling, Badminton