

MING FONG

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EDUCATION

University of California, Berkeley

Bachelor of Arts, Physics and Computer Science

June 2020 – May 2023

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

Machine Learning Researcher

January 2021 – Present

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

Quantitative Research Intern

May 2021 – August 2021

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.

Software Engineering Intern

August 2020 – January 2021

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

Software Engineering Intern

June 2019 – August 2019

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

Berkeley SAAS Data Consulting

Orbital Insight - Missing object interpolation for cloudy satellite imagery using time-series and geospatial techniques

ProducePay - Analyzed statistical factors contributing to 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

Google Trends Financial Modeling

Used Google Trends data to predict NASDAQ 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 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

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

SKILLS

Software Languages

Python, R, Java, C#, SQL, HTML/CSS/JavaScript

Tools

Jupyter, Linux, Windows, VS Code, Git

Interests

Table Tennis, Tennis, Cycling, Badminton