

Chunjiang (Jonathan) Mou

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EDUCATION

University of California, Los Angeles B.S. in Applied Mathematics, Specializing in Computing GPA: 3.9/4.0	Sep. 2019 – Jun. 2021
University of California, San Diego B.S. in Mathematics (Applied) GPA: 3.9/4.0	Sep. 2016 – Jun. 2019
Coursework: linear algebra, probability, statistics, stochastic process, ODE, PDE, real analysis, complex analysis, mathematical modeling, numerical analysis, mathematics of finance, data structures and algorithms (Java, C), intermediate programming (C++), mathematical software (R, MATLAB), python with applications	

PROJECTS

Asset Allocation (Advisor: James Jin, Quantitative Researcher, Fidelity Investments Inc.)	Sep. – Nov. 2020
<ul style="list-style-type: none">Constructed a cross-asset portfolio to achieve consistent returns with desired risk exposure by applying the All-Weather Strategy conceptsImplemented back-testing frameworks from 2008 to 2019 with a rebalancing time of one month (Python)Applied the Black-Litterman model to incorporate economic views into research findings	
COVID-19 Spreading Prediction – Mathematical Modeling project	Oct. – Nov. 2020
<ul style="list-style-type: none">Devised an enhanced susceptible-infected-removed (SIR) Model with new explanatory variables to predict the future spreading trends of the virus in the U.SImplemented the model with Python (NumPy, SciPy) to solve ordinary differential equations and run simulations	
Penguin Species Prediction – Python / Machine Learning project	Oct. – Nov. 2020
<ul style="list-style-type: none">Built decision tree, multinomial logistic regression, multilayer perceptron, support vector machine, and k-nearest neighbor models using Scikit-Learn to classify 300+ penguin species with a small number of measurementsAchieved 99.5% testing accuracy by conducting 5-fold cross-validation and systematic feature selectionInterpreted the confusion matrix and decision region to analyze the performance of the machine learning models	
Connect Four Game Implementation – C project	May. 2019
<ul style="list-style-type: none">Created the game artificial intelligence which scored 1 of 120+ candidates in the Connect Four tournament	

EXPERIENCE

Alpha Capital Holdings. – New York, NY	Jun. – Aug. 2020
<i>Data Science Summer Analyst</i> <ul style="list-style-type: none">Researched factor exposures of 100+ S&P 500 component stocks based on Barra Risk Factor Model to facilitate portfolio optimization decisions by calculating size, momentum, turnover, and volatility factor returnsEnhanced and monitored automatic data collection, cleaning, and visualization using MATLAB and Python (Pandas) to facilitate research reports efficiency	
Ricardo Beverly Hills – Kent, WA	Jun. – Aug. 2019
<i>Market Analyst – Summer Intern</i> <ul style="list-style-type: none">Gathered and analyzed statistical data of the global fan base to recommend 10+ social media strategiesDefined 30+ keywords based on brands and product names; built a web scraper using Python (Scrapy) to crawl 300+ forums and social media sites for brand monitoring; identified 20+ issues in products and services	
Shenzhen Co-win Venture Capital Investments Limited – Shenzhen, China	Jun. – Aug. 2018
<i>Financial Analyst – Summer Intern</i> <ul style="list-style-type: none">Completed 2 in-depth industry analysis of electrical design automation and power amplifier for 4 potential clientsManaged due diligence on 4 target companies in the semiconductor industry by appraising the target companies' business models, product performance, financial positions, and cooperate actionsApplied DCF and LBO models in a 40-million-RMB private equity investment to forecast return	

COMPUTER SKILLS/OTHER

- Programming Languages:** Python (packages: NumPy, Pandas, SciPy, Scrapy, Scikit-Learn), Java, C++, C, R, MATLAB, SQL
- Other Software:** Wind Financial Terminal, LaTeX, Microsoft Office
- Languages Spoken:** English (fluent), Mandarin (native), Cantonese (fluent)
- Coursera:** Fundamentals of Quantitative Modelling (Wharton Online), Advanced Portfolio Construction and Analysis with Python (EDHEC Online), Machine Learning (Stanford Online)