

ANGELA YUAN

yangela@mit.edu | +1 (214) 478 7356

EDUCATION

Massachusetts Institute of Technology

Bachelor of Science in Mathematics with Computer Science

Cambridge, MA

Expected May 2026

Relevant Coursework: Probability, Statistics, Mathematics for Computer Science, Machine Learning, Data Structures & Algorithms, Algorithm Design & Analysis, Linear Algebra, Real Analysis, Multivariable Calculus, Software Construction

GPA: 4.9/5.0

EXPERIENCE

Quantitative Researcher Intern

June 2024 – August 2024

Zhuoshi Private Equity Fund Co.

Beijing, China

- Coded and backtested an LSTM-enhanced intraday strategy based on the MACD indicator, achieving a 4% increase in annualized return from 2018 to 2024 compared to the simple momentum strategy
- Programmed trading strategies based on dividend yield and market cap, producing a 12.16% backtested annualized return using Keras, Pandas, Matplotlib, and JoinQuant quantitative platform
- Conducted preliminary factor mining by computing Pearson correlations between 191 Alpha191 factors and renewable energy and automobile ETFs, generating visualizations with Matplotlib
- Analyzed multi-factor regression models and Brinson attribution, and researched factor crowding measures based on factor exposure intra-decile correlation of the Fama-French three-factor model residuals

Covid-19 Data Researcher

May 2020 - August 2020

Peking University

Remote

- Discretized ordinary differential equations for the SIR pandemic model and designed features based on difference equations for 4-day intervals over 180 days to estimate infection and recovery parameters
- Trained a neural network to predict an average natural reproduction number of 2.8 for June 2020, aligning with a 1.9-4.2 interval estimation from Imperial College London, using Python and Keras
- Published paper on Advances on International Applied Mathematics in 2021

PROJECTS

Motor Task Prediction Using Convolutional Neural Network

February 2024 - May 2024

- Preprocessed dataset of 124 trials from 16 patients with raw EMG signals from 256 electrodes, converting the data into spectrograms as tensor inputs through Fast Fourier Transform using Python and PyTorch
- Classified motor tasks into ankle dorsiflexion and knee flexion using CNN convolution and pooling layers, achieving a 76% prediction accuracy by averaging pixel inputs over spectrograms from multiple electrodes for each patient, using Python, PyTorch, and NumPy
- Collaborated effectively with team members to complete tasks efficiently and communicated results through presentations and written reports

SKILLS

Technical: Python, Keras, Numpy, PyTorch, Typescript, Pandas, Matplotlib, JoinQuant quantitative data platform

Languages: English(fluent), Mandarin (native), French (beginner)

HONORS & ACTIVITIES

- MIT Varsity Fencing - 2024 Northeast Fencing Conference Academic All-Conference
- MIT Asian Dance Team Choreographer
 - organized dances of 20-30 people and coordinated showcases each semester
- Co-President, Math Team(2021-2022)
 - Organized biweekly meetings and activities for 40-50 members, and pi-day celebrations for upper school
 - Coordinated concept review sessions and logistical preparations for math competitions
- 3-time American Invitational Mathematics Examination (AIME) qualifier (2020, 2021, 2022)
- The Rensselaer Science and Mathematics Award (2021)
- Math Prize for Girls Qualifier (2019, 2020)