

## Frank J.Fan

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### Education

**UCLA (University of California, Los Angeles)**

**Sep 2021-present**

**Mathematics of Computation; GPA: 4.00/4.00**

**Relevant coursework:** Introduction to Computer Science; Data Structures & Algorithms; Python with Applications; Integration and Infinite Series; Single&Multi Variable Calculus; Linear Algebra; Differential Equations

**Audit course:** Introduction to Finance(Secondary Market); Introduction to reinforcement learning

**Wuhan Britain-china School**

**Sep 2018-May 2021**

The International Baccalaureate Program; IB Final Grade: 43/45

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### Experience

**Reinforcement Learning Research Assistant**

**June 2022-Sep 2022**

Python | Statistical Analysis | Microsoft Excel

- Proposed the EPC algorithm for solving multi-agent reinforcement learning problems inspired by the challenge that the variance of policy gradient grows exponentially with the number of agents.
- Applied the EPC algorithm to 3 different environments and compared its performance with baseline approaches and showed that it outperformed baseline approaches by 30%.
- Concluded that the EPC algorithm improved the stability of the training procedure by 40%.

**Program Participant for Software engineer at JPMorgan Chase&Co.**

**Dec 2021-Feb 2022**

Python | JavaScript | JPMorgan Chase frameworks

- Interfaced the relevant financial data feed and made 6 adjustments to facilitate the monitoring of potential trade opportunities by using Python and Git.
- Applied JPMorgan Chase frameworks and JavaScript to visually display data on their screens in chart form for traders to monitor the change in stock prices.
- Utilized JavaScript to set upper& lower bound for the data, distinguished the stages when the stock ratio is within or out of range, and alerted traders when proper trading strategies need to be changed.

**Program Participant for Investment Banking at Citi Bank**

**Oct 2021-Dec 2021**

Microsoft Excel | Financial Analysis | Formal Writing(report)

- Prepared a company profile for Zeta Inc. by making a company brief introduction, using Excel skills to draw the chart of its financial model and map its market size.
- Selected the appropriate comparable companies and used Excel coding skills to calculate financial metrics such as FV/EBITDA ratio, P/E ratio, and Dividend Yield from a large pool of data.
- Summarized key findings from the financial metrics and compared the performance of Zeta Inc. to its peers.

**Project Leader at Honeypt Tennis**

**May 2021-July 2021**

Project Management | Microsoft Excel | PowerPoint | Data analysis | Public Speaking

- Promoted the popularity of tennis among international schools in Wuhan by learning theories about project management, sales, planning, and data mapping.
- Successfully enabled Honeypt Tennis to take charge of the tennis training at Wuhan Britain-china School
- Increased the total sales of Honeypt Tennis by 10% and its customer base by 20% by holding info sessions about Tennis & Children Growth.

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### Volunteer service

**Volunteer Math Tutor on Easy A**

**Nov 2021-present**

- Mentor 50 students, cumulatively help solve 200 problems, and spend more than 60h volunteering on the platform.
  - Develop strategies to order logic in the easiest comprehensible manner.
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### SKILLS

**Skills for job:** Python | C++ | HTML | CSS | R | Microsoft Excel | PowerPoint | Project management | Data analysis

**Languages:** Chinese(native)and English

**Interest:** Tennis (15 Years) | Track and Field | Piano | Singing