Tianyu (Lawrence) Li

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EDUCATION

The University of Chicago | Chicago, IL   **Expected Jun. 2027**

B.A. Computer Science, B.S. Computational and Applied Mathematics
- Honors and Organizations: Financial Markets Program (Selective, three-year program focused on building quantitative finance acumen through weekly workshops, personalized advising, employer visits, and coursework at the Chicago Booth School of Business), Derivatives Group Quantitative Trading
- Relevant Coursework: Calculus, Linear Algebra, Discrete Mathematics, Probability Theory, Object-Oriented Programming, Computer Organization

University of California, Los Angeles | Los Angeles, CA   **Sept. 2023 - Jun. 2024**

Mathematics of Computation | GPA: 3.98/4.0 | Honor: 2023-2024 Dean's Honors List

EXPERIENCES

FX Expert (Kudi Technology) | Shanghai, China   **Jun. 2024 - Aug. 2024**

IT Intern
- Created gadgets to streamline groundwork for the project team, including a Python script that extracts currency information from online reports and a SARIMA model that forecasts market prices.
- Tracked and fetched financial data from the Bloomberg terminal, including exchange rates, forwards, resistance, and support.

Scalable Analytics Institute UCLA | Los Angeles, CA   **Feb. 2024 - Jun. 2024**

Undergraduate Research Fellow
- Refined Large Multimodal Models (LMMs) by integrating further capacities, such as inductive and mechanical reasoning.
- Collected images as data points of a JSON dataset by labeling their features and desired outputs and benchmarked LMMs against it on MM-Vet evaluators.

LEADERSHIP & PROJECTS

Software Engineer Trainee | Algo Group UChicago   **Oct. 2024 - Present**
- Practice and discuss weekly DSA challenge problems by developing codes and looking for efficiency optimization.
- Building efficient object-oriented projects by applying data structures, algorithms, and optimization techniques from the curriculum.

AI Engineer Intern | Association for Computing Machinery UCLA   **Sept. 2023 - Mar. 2024**
- Developed an emoji generator using the CNN model with GANS in PyTorch, based on a Kaggle dataset of existing emojis.
- Experimented with different designs of layers for the generator and discriminator by building on established methods, such as the LeNet and AlexNet, and calculating input and output volume sizes.

LA County Land Use Structure Optimization | GEC Academy *(Mentor: Prof. Justin Holmer)*   **July 2023 - Nov. 2023**
- Analyzed the allocation of major land types in LA County based on data of the past decade and devised a numerical prediction for land use structure in 2025 that maximizes the socio-economic and environmental benefits.
- Collected data from government databases, reports, and related works and applied a grey linear program with a weighted sum objective function to project land types' areas, resulting in an increase of 8.26% in quantified benefits.
- Published the research at CONF-CIAP 2024, indexed by EI Compendex.

Intelligent Food Inventory Management System | Cal Poly Pomona *(Mentor: Prof. Yu Sun)*   **Jan. 2022 - Sept. 2022**
- Built a mobile application that identifies the real-time stock status of grocery items to prevent oversupply using Dart.
- Compiled and improved a dataset of 150 images of food items in Roboflow and implemented the computer vision model YOLOv5, resulting in a model precision of around 50%, GIOU loss of 6%, and recall of 80%.
- Published the research at DSML 2022 and earned a provisional patent from the USPTO.

HONORS AND AWARDS

2022 Canadian High School Model United Nations | *Business Committee Best Delegate (Top 1 of 30 delegates)*   **Apr. 2022**
- Advocated for a cautious adoption of cryptocurrency among financial institutions as the delegate of Barclays.

SKILLS AND INTERESTS

Computer Skills: Java, Python, C++, PyTorch
Language: Chinese (Mandarin), English, Beginner French
Interests: Soccer | Tennis (Tennis Canada certified coach) | Bodybuilding | Accordion (Level 8) | Chess