

Leon Zhou

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Education

Columbia University

Masters of Science in Computer Science, 4.00/4.00

New York, NY

Expected May 2024

Columbia University

Bachelor of Arts in Mathematics and Data Science, 3.87/4.00

New York, NY

Sep 2020–May 2023

Relevant Coursework: Artificial Intelligence, Probability Theory, Machine Learning, Algorithms, Computational Learning Theory, Stochastic Processes, Computer Vision, Differentiable Manifolds, Real Analysis

Skills

Programming: Python, C++, Java, Pytorch, Javascript, Hadoop, MapReduce, SQL, Langchain, Haskell, R, Excel

Experience

IDEA Research

AI Finance Intern

Shenzhen, CN

Jul 2023–Aug 2023

- Proposed and published novel framework for AI foundation models to interface with LLMs and quantitative trading software
- Applied Generative AI towards creating thousands of syntax-specific alphas for financial factor mining
- Developed automated pipeline utilizing OCR to parse stock indices from weekly financial reports

Goldman Sachs

Software Summer Analyst

New York, NY

Jun 2022–Aug 2022

- Enhanced the Knowledge Graph of Goldman Sachs by combining multiple data sources in one massively distributed multivariate graph and applying graph-theoretic, machine learning and natural language processing tools for insights
- Created a new signal based on physical proximity of employees to enhance relationship understanding among colleagues in the Pythia Knowledge Graph using MapReduce
- Deployed unsupervised machine learning algorithms to cluster and classify over 10 billion relationships

Ahi Fintech

Software Engineer Intern

Beijing, CN

Jun 2017–Aug 2017

- Detected financial fraud in collaboration with banks and peer-to-peer lending services
- Discovered inconsistencies between reported and web-scraped data pinpointing customers with incorrect credit ratings through supervised learning models

Leadership & Projects

Mathematical Contest in Modeling (MCM)

Presenter

New York, NY

Dec 2021–May 2023

- Co-authored a paper predicting future distribution of guesses needed for Wordle, based on word entropy and statistical prediction of daily players
- Won 'Outstanding Winner' in the MCM, beating out 11,000 teams from 21 countries to achieve the MAA and INFORMS award

Axel Laboratory

Research Assistant

New York, NY

Mar 2022–Jun 2022

- Ran experiments to discover the brain circuitry underlying curiosity and information gathering in hundreds of mice
- Deployed Convolution Neural Networks to identify neural activation of real cells using traces
- Led automation for preprocessing and motion-correction of fluorescence microscopy data

UChicago Brainbridge Laboratory

Research Assistant

Chicago, IL

Mar 2020–Sep 2021

- Modified Avatar creation tool in JSON to test memorability of faces
- Analyzed participant data and tested hypothesis on differences between visual and memory recollection
- Presented poster of experiments including patients with prosopagnosia at the Vision Sciences Society conference

Interests

Interests: Percussion, Rock Climbing, Film Photography, Rowing, David Bowie, Philosophy, Chess