Alexander Qu

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EDUCATION

University of Chicago	Expected Graduation: Dec 2024	**2023 - 2024 GPA:** 3.91/4.00

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Bachelor of Science in Statistics   **ACT:** 36/36 (35E|36M|35R|36S)
Bachelor of Arts in Physics   **GRE:** 336/340 (166 VR|170 QR|4.5 AW)

Relevant Coursework: Machine Learning and Large-Scale Data (A), Statistical Theory and Methods (A), Quantitative Portfolio Management & Algorithmic Trading (A), Analysis in R^n (A)

Honors & Awards: Dean's List, NCAA Academic All American

PROFESSIONAL AND RESEARCH EXPERIENCE

UChicago Booth - Econometrics and Statistics | Chicago, IL   June 2024 – Present
Deep Autoencoders (for Macro Variable Prediction)
- Introduced a new, trainable lambda layer which reduced model parameters by a factor of the input/output
- Developed a sparse decoder to individually recreate input variables separately from latent and lambdas

Fundamental Signal Analysis for US Stock Markets (Ongoing)
- Extended the signals from Open Source Asset Pricing to a monthly basis (previously quarterly/annual)

Mission Viejo Nadadores | Mission Viejo, CA   Jan 2023 – Dec 2023
Swim Coach, Age Group Division
- Coached over 200 swimmers on technical development with 85% improvement rates overall (from 60%)
- Worked with coaches to develop new athlete development and common language frameworks for athletes

Medical Implant Mechanics | Irvine, CA   Jun 2018 – Aug 2018
Research Intern, Material Sciences
- Designed and conducted experiments to assess the resilience of different nickel-titanium alloys, leading to identification of an alloy with a 15% projected lifespan increase over current heart-valve replacements
- Automated spreadsheets and revised procedures, which doubled the amount of tests performed per day

University of Chicago Institute for Molecular Engineering | Chicago, IL   Jan 2018 – Mar 2018
Research Intern, Material Sciences
- Analyzed >500k data points collected from Chicago residences to model solar energy generation potential
- Collaborated with Harris students and professors to submit a proposal for public solar energy investment

LEADERSHIP AND EXTRACURRICULAR EXPERIENCE

Rockefeller Business Management | Chicago, IL   Oct 2017 – Jun 2020
Vice President of External Outreach
- Coordinated proposal submissions and funding requests between students and faculty at the Polsky Center for Entrepreneurship to secure over $50k in funding for over 100 different student-started businesses
- Developed a new community-driven recruitment program to increase cohort sizes to 50/year (from 20)

Phi Delta Theta Fraternity | Chicago, IL   Sep 2017 – Jun 2020
Alumni Relations Chair
- Increased Alumni fund contributions to $1.5M (from <$100k) and organized events for over 300 alumni
- Coordinated with Nationals and the Alumni board in order to formally recolonize the Illinois Beta chapter

CHOMUN | Chicago, IL   Sep 2017 – Jun 2020
Committee Chair, UNFCCC
- Researched country policy in order to organize and judge debate between students from over 50 schools
Travel Delegate, DISEC
- Competed by writing and presenting resolutions on disarmament; Best Delegate at GAUCHOMUN

SKILLS & INTERESTS

Skills: Python (Numpy, Pandas, SciKit, PyTorch, Tensorflow), R, Excel, Financial Model (3SM, DCF, LBO)
Languages: Mandarin (Fluent Speaking), Spanish (Beginner)
Certifications & Training: Coursera TF for Deep Learning, Tensorflow Developer Certificate Level 1
Interests: Swimming, Model United Nations, Machine Learning, Piano, Olympic Weightlifting