

Joshua Lin

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EDUCATION

Princeton University, BSE in Computer Science

(Expected) Aug 2023 - May 2027

Minors in Mathematics, Statistics & Machine Learning

GPA: 3.74/4.0

- Graduate Coursework: Advanced Machine Learning, Linear and Nonlinear (Convex, Nonconvex, Stochastic) Optimization.
- Awards: Pyka Prize for “promise in independent research,” Overall Winner at HackPrinceton, Top 5 at COSCON (CP).
- Activities: ICPC Team. ACM Officer. Tour Director for Debate Panel. Treasurer for TASA (Taiwanese Association).

EXPERIENCE

Math & Computer Science Instructor

Jun 2024 - Aug 2024

Jane Street Capital

New York, NY

- Taught topics in probability, non-cooperative game theory, and software engineering at quant finance talent search AMP.
- Led algorithmic market-making simulations, teaching penning, arbitrage, and fair value estimation techniques via statistical analysis of big data. Directed participants on operating Amazon EC2 cloud development environments.

Computational Physics Research Intern

Jan 2023 - May 2023

NASA Jet Propulsion Laboratory

Pasadena, CA

- Developed numerical models analyzing time evolution of Europa’s morphology by identifying regions of geologic co-/re-activation and reconstructing band formation sequence from NASA GIS *Galileo* mission data.
- Presented findings at NASA-JPL research conference to physicists from the Europa Clipper science team.

PROJECTS

Emergency Signaling System

Nov 2023

Top Prize, HackPrinceton

Princeton, NJ

- Developed “Moco” in Swift, Python, & JavaScript to discretely execute preset emergency calls, texts, and other actions, triggered by customizable wrist gestures pre-calibrated with iOS app.
- Routed real-time data streams from Apple Watch and geometric recognition algorithms to server for gesture matching.

Automated Securities Trader

July 2023

Top Prize, Jane Street Electronic Trading Challenge

New York, NY

- Engineered stochastic models to forecast time series through order book data, conducting six hours of live market making.
- Interfaced with backend AWS servers through WebSocket API to exchange bonds, stocks, and ETFs at high frequency.

VR Astrophysics Engine

Jun - July 2022

Presented at Carnegie Mellon CS Seminar

Pittsburgh, PA

- Applied 3D computer graphics, sound engineering, and numerical algorithms to create planetary physics simulation.
- Integrated project with Meta Oculus Quest headsets, precision handheld tracking, and VR graphics interfaces.

SKILLS & INTERESTS

Languages C, C++, C#, Python (CVXPy, Tensorflow, Pandas, Numpy, Scipy), Java, Git, Assembly, Bash/zsh, gdb

Statistics Excel, R, SQL, Mathematica, MorningStar Direct

Interests High-dimensional probability, randomized algorithms, convex optimization, alacrity + neovim.

AWARDS

Wells Fargo Wealth Management Competition (National Champion)

Aug - Oct 2023

Jane Street Scholarship (\$5k, Three-Month Residential Program in NYC)

Jun - Aug 2023

USAPhO National Physics Olympiad (Semifinalist, Honorable Mention)

May 2023

The Bill and Melinda Gates Scholarship (Full-Ride, 51000+ Applicants)

April 2023