

# Alex Kim

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## EDUCATION

### Johns Hopkins University

Bachelor of Science

Baltimore, MD

Expected June 2026

- GPA: 3.83
- Major: Applied Mathematics and Statistics, Computer Science

## WORK EXPERIENCE

### Options Trading Algorithm Researcher

Dr. Ali Madooei Algorithmic Trading Research Group

Baltimore, MD

January 2025 - Present

- Developed and optimized mean-reversal options trading algorithm in python
- Preprocessed past 35 years of stock data using yahoofinance for backtesting and model development
- Submitted algorithm for QuantConnect Q2 Trading Competition
- [https://github.com/JHU-Algorithmic-Trading/buy\\_on\\_dip](https://github.com/JHU-Algorithmic-Trading/buy_on_dip)

### Course Assistant

Johns Hopkins Computer Science Department

Baltimore, MD

January 2025 - Present

- Course Assistant for Intermediate Programming (EN.601.220)
- Guided students in gdb/valgrind debugging, problem-solving, and understanding C/C++ concepts
- <https://jhu-ip.github.io/cs220-sp25/index.html>

### Research Assistant

Edison Lab

Baltimore, MD

September 2024 - Present

- Developing reinforcement learning systems in Python to model ordered assemblies on curved fluid surfaces
- Designing Monte-Carlo Simulations in Python to model and visualize classical density function theory(cDFT)
- Organized bi-weekly meetings with Dr. Edison to overview project development and strengthen RL concepts

### Sergeant

Enlisted Soldier for the Republic of Korea Air Force: (AFSC: 2F0X1 (POL))

Busan, South Korea

October 2022 - July 2024

- Dispensed, stored, and supplied JP8 Jet Fuel, JetA1, Diesel, Kerosene, Lubricants, and Gasoline
- Operated refuel tankers for KC330 Cygnus MRTTs, C130J Super Troopers, CN235s, and E737 AEW&C Peace Eye's
- Designed emergency refuel action plans for Gimhae Airbase (K-1) with USAF, USMC, and Army branches
- Collaborated with USAF members in fuel RTB, cycling, and quality tests weekly
- Honorably discharged after 21 months

## ACTIVITIES

### General Member

HopAI

Baltimore, MD

September 2021 - Present

- Collaborated as a team to build code in Jupyter(Python) for computer vision data mapping and ML integration
- Developed Math-to-Latex(system for writing math symbols) through visual detection

### Board Treasurer

Charm City Science League & Maryland Science Olympiad

Baltimore, MD

September 2021 - May 2022

- Wrote exams for the Maryland Science Olympiad and JH Science Olympiad Invitational Tournament
- Supervised 2 events and marked exams for both tournaments with 20+ participating schools
- Oversaw general club accounting functions and corporate sponsorships

## AWARDS

- Honors: Dean's List all semesters
- Korea National Science Olympiad Brain Bowl: Second Place (Fall 2020)

## TECHNICAL SKILLS

Python | C | C++ | Java