AJ Hong

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Authorized to work in the U.S.

Education

Dartmouth College, Hanover, NH **June 2028**
Bachelor of Arts, Major in Mathematical Data Science Minor in Neuroscience **GPA 3.7/4.0**

- Relevant Coursework: *Data Visualization (Winter 2025), Probability (Spring 2025), Multivariable Calculus (Fall 2025), Probability and Statistical Inference (Winter 2026)*
- Honors/Awards: Andrew J. Scarlett Scholar

Cheongshim International Academy, South Korea **February 2024**

- Honors/Awards: National Merit Finalist **GPA 5.0/5.0**
- Activities: Rock Band - Lead Guitarist, Student Government - VP **SAT 1560**

Relevant Experience

Tuck Business Bridge Program, Hanover, NH **November 2025—December 2025**
Incoming Participant

Forest Asset Management, Seoul, South Korea **June 2025—August 2025**
Summer Analyst Intern

- Produced an investment memo recommending KKR & Co. Inc., synthesizing financial, industry, and peer analysis.
- Assessed secular growth drivers including AI-driven infrastructure, private credit expansion, and 401(k) retail access.
- Benchmarked KKR against three other competitors across business mix, capital base, and leadership stability.
- Identified key risks (regulatory, reputational, liquidity) and evaluated impact on valuation and fundraising.
- Presented findings to the investment committee; recommendation led to a subsequent $3M equity position in KKR.

Warlow Laboratory at Dartmouth College, Hanover, NH **January 2025—Present**
Research Assistant

- Conduct Pavlovian behavioral experiments and manage 1000+ data points to analyze trends in cue-driven decision-making.
- Apply quantitative neural signal analysis—calculating ΔF/F (relative fluorescence changes), z-scores (normalized activity), and area under the curve (aggregate response strength)—to evaluate neural activation patterns during behavioral tasks.
- Visualize and interpret large behavioral datasets through MedPC and MATLAB, producing detailed analytical outputs and visualizations that directly inform ongoing publications, grant applications, and experimental design within the lab.

MIT Beaver Works Summer Institute, Cambridge, MA **August 2023**
Autonomous Underwater Vehicles Challenge

- Selected for a competitive four-week program hosted by MIT focused on systems engineering and decision-making.
- Designed and optimized a fully autonomous underwater robot capable of executing 40+ progressively complex missions (e.g., 360° rotation, front/back flips, maintaining stable depth) using motor control informed by computer vision feedback.
- Developed and refined Python/C++ (OpenCV) vision algorithms for path identification and AprilTag recognition, enhancing real-time navigation precision and system responsiveness under dynamic underwater conditions.

Regeneron International Science & Engineering Fair (ISEF), Atlanta, GA **May 2022**
Finalist

- Selected as one of ~1,800 global finalists (representing Korea) at the world's largest pre-college STEM competition.
- Led a 2-member research team investigating the impact of growth promoting bacteria inoculation on wheat growth efficiency, designing controlled experiments across 4 treatment groups and 3 bacterial strains with data collection protocols.
- Collected and analyzed 120+ data points using R (tidyverse) to quantify dry-weight growth differentials and identify statistically significant trends in plant response to bacterial treatment under varying CFU concentrations.
- Synthesized findings into a research presentation evaluated by 6 international judges under professional scientific standards.

Leadership & Community Experience

Undergraduate Advisor (UGA), Hanover, NH **September 2025—Present**
School House

- Supervise and mentor ~20 students as an RA, supporting academic adjustment, wellness, and community engagement.
- Lead weekly meetings and organize community-building events to strengthen resident connections and inclusivity.
- Conduct regular safety walkthroughs and collaborate with residential staff to enforce policy and address crises effectively.

Skills & Interests

Technical: RStudio (tidyverse), Python, Java, MATLAB, Microsoft Office Suite
Languages: English (fluent), Korean (fluent), Spanish (elementary), Japanese (elementary)
Additional Interests: Alpine Skiing, Korean Cooking, Film & Cinema, Jewelry Making, Custom Guitar Building