ALEXANDER KO

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Education

Harvard College — Cambridge, MA
Bachelor of Science in Mechanical Engineering — May 2028
Cumulative GPA: 3.83/4.00
Coursework: Mechanical Systems, Computer-Aided Machine Design, Intro Mechanics, Intro Electricity and Magnetism, Multivariable Calculus, Linear Algebra, Intro Microeconomics, Intro Macroeconomics

Weston High School — Weston, MA
MA Seal of Biliteracy. SAT: 800M, 770V. GPA 3.95. National Merit Scholarship Finalist. — June 2024
Awards: PTO Award for Excellence in Science and Technology, AP Physics, AP Mandarin.

Experiences

Harvard University, Slade Agility Lab — Allston, MA
Undergraduate Researcher — June - August 2025
Researched viability of human–robot interaction in assistive use cases with wearable robotic limbs under Professor Patrick Slade. Designed an on-body robotic arm based on an open source arm and implemented a vision language action model based controller for near-body manipulation. Crafted a rigorous, activities of daily living based protocol before pilot testing system to inform future potential multi-participant trials.

Weston High School Robotics — Weston, MA
Co-Founder, Co-Captain, Lead Coder, Head CAD Designer — September 2020 - June 2024
Co-founded school robotics program and led team to FIRST World Championship twice, finishing top 4 of 192 teams in 2023 (7,000+ teams worldwide). Raised $100,000 and successfully advocated for the town to build a dedicated robotics lab at school. Grew robotics program from 8 members to more than 200 students, and mentored 8 teams. Annually designed robot chassis and supervised all assemblies. Coded autonomous movement using trigonometric methods for determining position and proportional-integral-derivative control systems while integrating sensor and camera systems to improve performance.

MIT Media Lab, Biomechatronics Group — Cambridge, MA
Research Assistant — June 2023 - March 2024
Interned in Professor Hugh Herr's laboratory on a neurally controlled prosthetic leg for above-knee amputees. Fabricated and enhanced replica leg, alleviated critical electromagnetic interference issue, increased computer connectivity robustness via custom cable, and enhanced foot feedback system in C++. Facilitated weekend patient testing and data collection. Developed processing scripts to convert make millions of data points usable. Co-authored **paper published in *Science*** (DOI: 10.1126/science.adv3223).

Inspirit AI 1:1 AI + X Individual Research — Remote
Researcher — June - August 2022
Investigated how machine learning algorithms could optimize consumer plastics recycling accuracy, resource management, and efficiency using Python. Concluded that basic algorithms could result in greatly increased effectiveness and recommended appropriate changes. Mentored by Eric Bradford, lead for Apple's conversational AI/neuro linguistic programming department.

Leadership and Activities

Harvard Undergraduate Venture Capital Group — Cambridge, MA
Associate Director of Diligence — June 2025 - Present
Oversee and facilitate VCG's diligence branch while serving as foremost club knowledge across healthcare, deeptech, and fintech. Develop industry market maps and firm thesis overviews to train new associates and analysts, strengthening verticals expertise and sourcing capabilities. Lead technical questions during weekly investment committee. Serve on VCG's leadership board.

Previous positions held: Senior Associate (Feb 2025 – Jun 2025), Sourcing Analyst (Sep 2024 – Feb 2025).

Harvard Project for Asian and International Relations — Cambridge, MA
Director of Alumni Relations — September 2024 - Present
Designing a new role to reconnect with 30+ years of alumni. Previously designed conference programming agenda for two international relations conferences serving 1000 total young professional delegates. Recruited high profile speakers from political (Japanese House Members, Former US-Japan Ambassador), journalist (Washington Post Tokyo and Financial Times Tokyo Bureau Chiefs), and tech (Doosan Robotics, FPT Software) backgrounds before hosting fireside chats with them.

Skills and Interests

Technical: Java (intermediate), Python (intermediate), MATLAB (intermediate), SolidWorks (Associate),
Language: Fluent in Mandarin.
Hobbies: Running, skiing, golfing, swimming, and taking scenic photos using a DSLR whenever I travel.