

Jaeho Cho

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Education

The Cooper Union for the Advancement of Science and Art

Graduating 2026

Bachelor of Engineering in Electrical Engineering, Bioengineering Minor

- Half Tuition Scholarship — Myron Coe Scholarship — Full Tuition Scholarship 2025-2026
- Courses: Machine Learning, Digital Signal Processing, Communication Theory, Hardware Design, Electronics, Data Structures & Algorithms, Computer Architecture, Linear Algebra, Ordinary & Partial Differential Equations, Probability

Experience

Data and AI Intern — Hanwha TotalEnergies Petrochemical

Seoul, South Korea

PWC

May 2024 – Aug 2024

- Designed and optimized time-series forecasting models using libraries such as GluonTS, Chronos, and Darts, delivering actionable price predictions for flagship petrochemical products (e.g., styrene monomer (SM), paraxylene (PX)).
- Refactored backend data pipelines, transitioning from MongoDB to ClickHouse and improving data flow efficiency.
- Developed a web backend for business analysts, automating the aggregation of news and articles via APIs and integrating LLM-driven sentiment analysis with aforementioned predictive forecasting models to enhance market insights.

Teacher Assistant — Design and Drawing

New York, NY

The Cooper Union

June 2023 – Aug 2023

- Taught 24 high school students the fundamentals of engineering design, circuit design, Arduino and Onshape CAD.
- Led workshops on Arduinos and circuit design, culminating in students building 3D printed 4-DoF robotic arms.

Extracurricular Activities

Founder/President — The Pre-Medical & Pre-Dental Society

New York, NY

The Cooper Union

Sept 2024 – present

- Established a support network for pre-medical/dental students, bridging gaps in guidance at the Cooper Union.
- Coordinated events such as a blood drive that attracted 40 donors and resulted in 37 blood donations, as well as alumni networking sessions that facilitated connections between students, medical school attendees, and professionals.

Project Lead — Bioengineering Vertically Integrated Projects

New York, NY

The Cooper Union

Sept 2022 – present

- Building open-source robotic arms for compliant human interaction, leveraging Mediapipe and OpenCV for real-time pose detection and integrating ROS2 for seamless control logic and interfacing with the OpenMANIPULATOR-X system.
- Simulated pose mimicking systems in Gazebo, utilizing MoveIt2 & ros2 control for collision detection and motion planning.
- Designed & fabricated a custom PCB for an eTextile sensor, presented at the 2024 ASTM International Exo Games.

Research Assistant — Mechanical Exposure Study

New York, NY

Mount Sinai

Feb 2024 – Aug 2024

- Spearheaded the analysis of Xsens IMU data using MATLAB to quantify mechanical exposure among industrial workers.
- Implemented an automated pipeline for data collection, labeling, and analysis, streamlining the research process.

Shadow — Dr. Steve Doh (anesthesiologist)

Yonkers, NY

St. Joseph's Medical Center

June 2023 – July 2023

- Observed various medical procedures, including endoscopies, laparoscopies, orthopedic surgeries, and open surgeries.
- Gained insight into the integration of advanced technology in surgeries, including the Da Vinci surgical system.

Skills

Programming: Python, MATLAB, C, C++, Verilog, VHDL, Git, Docker, SQL, Django, React

Software: Virtuoso, LTspice, Altium, Vivado, ROS2, Gazebo, Blender, Onshape, Fusion360, Inventor

Certification: NYS EMT, CPR