

Jaeho Cho

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EDUCATION

The Cooper Union for the Advancement of Science and Art

New York

Bachelor of Engineering in Electrical Engineering, Bioengineering Minor

Graduating 2026

- Half Tuition Scholarship | Myron Coe Scholarship | Full Tuition Scholarship 2026-2027
- **Courses:** Machine Learning, Digital Signal Processing, Communication Theory, Hardware Design, Electronics, Data Structures & Algorithms, Computer Architecture, Linear Algebra, Ordinary & Partial Differential Equations, Probability

EXPERIENCE

The Cooper Union • New York, NY

Sep 2024 – Present

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

- Established a support network for pre-medical/dental students, addressing Cooper Union's limited guidance for these tracks.
- Built a growing network of medical students, healthcare professionals, and alumni to mentor and support society members.

The Cooper Union • New York, NY

Sep 2022 – Present

Vertically Integrated Projects | Bioengineering

- Building open-source, low-latency compliant robotic arms optimized for direct human interaction with computer vision.
- Simulated robotic pose mimicking systems in Gazebo using OpenCV & ROS2 for collision detection and testing.
- Designed & fabricated a custom PCB for an eTextile sensor, presented at the 2024 ASTM International Exo Games.

PWC • Seoul, South Korea

May 2024 – Aug 2024

Hanwha TotalEnergies Petrochemical | Data and AI Intern

- Developed and enhanced time series forecasting models to predict prices of flagship petrochemical products (SM, PX).
- Refactored backend data pipelines, transitioning from MongoDB to ClickHouse and improving data flow efficiency.
- Built a web backend for business analysts, delivering market insights and predictions through sentiment analysis.
- Implemented MLOps pipelines, automating data collection, ingestion, and deployment monitoring

Mount Sinai • New York, NY

Feb 2024 – Aug 2024

Mechanical Exposure Study | Research Assistant

- 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.

The Cooper Union • New York, NY

Jun 2023 – Aug 2023

Design and Drawing | Teacher Assistant

- 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 interactive 4-DoF robotic arms.

St. Joseph's Medical Center • Yonkers, NY

Jun 2023 – Jul 2023

Dr. Steve Doh (anesthesiologist) | Shadow

- 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.

PROJECTS

32-bit Pipelined MIPS Processor

Sep 2024– Oct 2024

- Designed, implemented and simulated the processor in Vivado, achieved full positive slack with a clock period of 14 ns.

Amplifier Design for Transceiver

Apr 2024– May 2024

- Achieved 12dB voltage gain at 1GHz and 8mW power consumption using a two-stage amplifier, simulated in Virtuoso.

Prosthetic Hand

Aug 2021– Sep 2023

- Designed a 6-DoF myoelectric prosthetic hand with a friend who has a congenital left-hand anomaly (acheiria).

SKILLS

- **Programming:** Python, MATLAB, C, C++, Verilog, Git, Docker, SQL, Django, React
- **Software:** ROS2, Blender, Onshape, Fusion360, Inventor, Altium, Vivado, Virtuoso, Gazebo, LTspice
- **Certification:** NYS EMT, CPR