HUGO ONGHAI

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EDUCATION

Cornell Tech, Cornell University — **New York, New York**
M. Eng. in Electrical and Computer Engineering — *Expected June 2026*
- GPA: 4.0/4.0
- Recipient of Cornell Tech Merit Scholarship and Admission Office Student Ambassador

University of California, Los Angeles (UCLA) — **Los Angeles, California**
B.S. in Materials Engineering with specializations in Electronic Materials and Math of Computation — *June 2025*
- Cumulative GPA: 3.975/4.0; summa cum laude; 5x Dean's Honor List
- Recipient of Chin Family Endowed Engineering Scholarship (2024), Knapp Scholarship for Ceramics Studies (2023)
- Relevant Coursework: Machine Learning for MSE, Computer Methods of MSE, Honors Proof-Based Linear Algebra

RESEARCH

***Ab Initio* Simulations Lab @ UCLA** — **Los Angeles, California**
IBM Research Scholar — *September 2023 – Present*
- Awarded competitive scholarship from IBM to conduct undergraduate research, through the Semiconductor Research Corporation Undergraduate Research Program
- Writing in-house scripts for MSPARC, a real space density functional theory package for MATLAB, to better analyze band structures of exotic electronic materials

Institute for Biological Information Processing (Bioelectronics) — **Forschungszentrum Jülich, Germany**
DAAD RISE Intern — *June 2024 – September 2024*
- Awarded competitive scholarship to research at Forschungzentrum Jülich, one of Europe's largest research centers
- Demonstrated a greatly improved accelerated aging tests process and setup on 3D-printed, flexible neural implants
- Performed electrochemical impedance spectroscopy, charge injection capacity testing, and data analysis with galvani, Matplotlib, seaborn, NumPy, and pandas

Center for Thermal Spray Research at Stony Brook University — **Stony Brook, New York**
Research Intern — *July 2022 – August 2022*
- Studied the relationship of stiffness and spray distance and changes in porosity via impulse excitation
- Designed MATLAB script to run point tracking algorithm on spray-coated samples undergoing three-point bend testing to visualize crack propagation and measure strain

Nagan Research Lab — **Stony Brook, New York**
Simons Fellowship Research Intern — *June 2021 – August 2021*
- Used torsion bond-angle analysis technique to characterize molecular dynamics simulations
- Gained valuable experience with AMBER simulation, Jmol visualization, and remote Linux systems

Garcia Center for Polymers at Engineered Interfaces — **Stony Brook, New York**
Garcia Research Scholars Summer Intern — *June 2020 – September 2020*
- Analyzed AFM and CV data of gold thin-films on silicon wafers as potentiometric biosensors
- Awarded "Most Outstanding Exhibit in Material Science" distinction by American Materials Society

WORK EXPERIENCE

Materials Project — **Lawrence Berkeley National Lab, California**
Materials Informatics Database Intern — *June 2025 – August 2025*
- Used Python and MongoDB to manage the submission and documentation of DOI numbers as released by the U.S. Department of Energy's Office of Science and Technology Information.

Cedar Hill Cemetery — **Port Jefferson, New York**
Gravedigger and Grounds Laborer — *August 2023 – June 2024*
- Performed over 20 funeral and burial services in first 2 months
- Learned to help people during their hardest times in life and in moments of great emotional distress

LEADERSHIP & INVOLVEMENT

Materials Research Society at UCLA — **Los Angeles, California**
Historian and Web-Dev Team Member — *May 2023 – June 2024*
- Serve as sole editor, writer, and designer for quarterly alumni newsletters and professor interview series
- Using WordPress to design a new and streamlined organization website
- Established new LinkedIn group, so far connecting 100 alumni, students, and faculty in its first year

UCLA Women's and Men's Volleyball Production Team — **Los Angeles, California**
Student DJ/Audio Engineer — *September 2023 – April 2024*
- Curate, play, and remix music for UCLA D1 Women's Volleyball Home Games
- Gained experience with stadium sound systems, audio engineering, and fast team coordination