Alex Lu Huang

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EDUCATION

New York University Tandon School of Engineering   New York, NY | 9/23 —5/26
- Major: BS Civil Engineering, Minor: Transportation Engineering, GPA: 3.571
- Relevant Coursework: Traffic Eng., Transportation Eng., Probability and Statistics for Eng., Geotechnical Eng., Water Resources Eng., Construction Project Management, Fundamentals of Environmental Eng.

WORK EXPERIENCE

Federal Energy Regulatory Commission, Engineering Intern   Washington, DC | 5/24 — 8/24
- Developed an Excel-based tool to help standardize the Commission's air and noise pollution reviews
- Authored and published 4 Environmental Documents analyzing gas project proposals' impacts
- Conducted field inspections for pipelines and compressor stations; contributed to scoping meetings

NYU Tandon School of Engineering, Undergraduate Research Assistant   New York, NY | 10/23 — 5/24
- Conducted market research and literature review for a book proposal on carbon capture technology
- Analyzed life cycle and GHG scope of carbon capture tech, investigating potential greenwashing
- Submitted manuscripts for review to *Wired*, the *New York Times*, and *Scientific American*

Grin Sustainability, Intern   Dix Hills, NY | 9/22 — 5/23
- Assisted clients' projects (e.g. Amazon, Northwell Health) in reaching LEED BD+C certification goals
- Guided $55M+ projects through ECCNYS, ASHRAE 90.1, and IECC compliance improvements

Brookhaven National Lab, Summer Research Intern   Upton, NY | 7/22 — 8/22
- Created a power generation model in MATLAB for the largest solar farm in the Northeast (LISF)
- Developed an autoregression-based intrusion detection system in Python for photovoltaic power grids

LEADERSHIP EXPERIENCE

Team Captain, NYU Concrete Canoe   New York, NY | 9/23 — 5/25
- Developed a carbon-negative, zero-cement mix, cutting embodied carbon by 104% vs. control (50% OPC)
- Pioneered a machine learning-enabled application to optimize paddler movements through live, automated feedback
- Cut project delivery time by 43% with a single-layer, zero-reinforcement construction method
- Tripled membership in 2 years, recruiting students from 8 majors across 11 countries
- Efficiently managed a $30k+ budget and negotiated contracts with various vendors and suppliers

HONORS

ASCE Society-Wide Concrete Canoe Championships 8th Place Overall – Out of 250+ teams across North America, the first all-rookie team to qualify for Society-Wide Championships in competition history

Concrete Industry Foundation James E. Halpin Scholarship – One of 10 out of all Civil Engineering Majors in NYC Metro area, awarded for demonstrated student-leadership in the AEC industry

NYSDEC Water Quality Challenge Top Proposal – Out of 1,000+ proposals across NYS, designed and constructed a rain garden to protect groundwater from runoff and nitrogen pollution

Gunter Georgi Award for Outstanding Engineering Design – 1st place out of 100+ teams in NYU General Engineering Showcase, invited to speak at Convocation ceremony

PROJECTS

Machine Learning for Equitable Solar Energy – Deployed a computer vision (CV) model and data analysis methods to identify socioeconomic equity gaps in solar installations on public school (K-12) lands in California.

Robocaddy: Golfing, Revolutionized – TensorFlow CV-enabled automatic golf ball collection robot, designed in Fusion360 CAD and built on VEX platform with Arduino and Raspberry Pi systems

Internal Tool for Air/Noise Reviews – Generated recommended environmental topics based on user-reported gas project features, built with Visual Basic for Applications on Excel

RISE – Competition robot capable of autonomous or driver-controlled navigation and scoring, ranked 15th in the world for scoring efficiency