

CHLOE NG

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EDUCATION

University of Pennsylvania, Philadelphia, PA Expected May 2026

Vagelos Integrated Program in Energy Research (VIPER) Dual Degree program

School of Engineering and Applied Science: Candidate for BSE in Chemical and Biomolecular Engineering with Minor in Engineering Entrepreneurship

College of Arts and Science: Candidate for BA in Earth and Environmental Science

GPA: 3.90. Teaching Assistant for CBE 1600. Select Courses: Environmental Fluid Dynamics, Global Climate Change, Energy and Its Impacts, Engineering Entrepreneurship, Product and Device Design, Process Controls

EXPERIENCE AND SKILLS

University of Pennsylvania, Philadelphia, PA Jan 2025 - Present

Engineering Entrepreneurship Fellow

- One of 12 UPenn students selected for a 12-month work-study program to develop entrepreneurship skills in creating, scaling, and leading principled high-growth technology ventures.

Portland General Electric, Remote July 2024 - Present

Clean Energy Acquisition Intern

- Analyzed and identified industry and competitive trends in the emerging 24/7 carbon-free energy markets to help cross-functional PGE team strategize and develop innovative new clean energy products and pricing tariffs.
- Developed Excel model for managing and optimizing Renewable Energy Credits (RECs) for various PGE programs.

Yan Group, Lab of Green Catalysis, National University of Singapore, Singapore Summer 2024

Undergraduate Research Intern

- Integrated a dual-functioning hydrophobic polymer to industrially used Cu/Zn/Al₂O₃ catalyst for the hydrogenation of CO₂ to methanol. Achieved a methanol yield higher than current literature reports and conducted research on catalyst characterization to understand the mechanism, reaction pathway, and the role of water in the reactions.

Schelter Group, University of Pennsylvania, Philadelphia, PA Summer 2023

Undergraduate Research Intern

- Researched and synthesized various additives in the 2-6-lutidine-N-oxide family to determine their effect on the reaction speed between various rare earth elements and novel H₆clamp ligand. Utilized UV-VIS data to optimize the change in kinetic rates and develop more efficient and effective kinetic separation of Neodymium and Dysprosium.

LEADERSHIP AND ACTIVITIES

Penn Climate Venture, Philadelphia, PA 2022-Present

Consulting Co-Lead (2024 - present), Project Lead (2022 - 2024)

- Co-leader of PCV Consulting practice with more than 40 consultants. Responsible for client sourcing and engagements, ensuring the quality of projects, recruitment, training, and developing a supportive community.
- Project Leader since Freshman year with three engagements. Led project team to explore anthropogenic methane emissions, analyze emerging solutions and technologies, and identify attractive investment opportunities for an early-stage venture capital fund focused on climate and sustainability.

Alternative Protein Project (APP), Philadelphia, PA 2023-Present

Research Team Director (2024 - present), Laboratory Research Team Lead (2023 - 2024)

- Directly responsible for recruitment, guiding research team, locating resources, and liaising with advisors.
- Raised over \$5000 in research grants (including the Food for Thought - Research Incubator/Competition)
- Initiated projects in Tangen Hall's Food Innovation Lab and guided team members to ideate, test, iterate, and bring to market alternative protein products like fermented bulgar-based cheese and cost-friendly vegan protein powder

Engineering Entrepreneurship, Philadelphia, PA 2023-Present

DoE Energy Tech-Up: Eastern Regional Semifinalist, "Carbon Upcycled: From Carbon Dioxide to Carbon Nanofibers". Designed a commercial reactor to implement the carbon capture and conversion technology.

Cultivate Tomorrow Hackathon: Runner-Up, "Developing a Sericin-based Serum-free Cell Culture Media". Looked into the feasibility of using Sericin to create more ethical and cost-effective cell-cultivated meat.

TeamUSA Taekwondo, Penn Taekwondo 2012-Present

USA National Team (2020), Penn Taekwondo Competition Team (2022-Present)

- 2020 TeamUSA Taekwondo National Team; Represented USA & won Gold at 2020 Pan American Championship.
- Captain for Penn Taekwondo Demo Team; Medalled at multiple ECTC tournaments helping Penn win its division.

INTERESTS

Eco-friendly diet, Chinese Lion Dancing, *Senbazuru* (1000 origami cranes), Mensa, Minesweeper, Green Chemistry