

Allie (Minh-Anh) Nguyen

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EDUCATION

University of California, Berkeley

Ph.D. in Environmental Engineering

M.S. in Environmental Engineering — GPA: 4.00/4.00

Berkeley, CA

Aug 2022 – May 2027 (Expected)

Aug 2022 – Dec 2023

University of Minnesota - Twin Cities

B.Eng in Environmental Engineering — GPA: 3.81/4.00

Minneapolis, MN

Aug 2018 – May 2022

WORK EXPERIENCE

University of California, Berkeley

Graduate Student Researcher

Project: Pandemic Readiness and Equity through Virus Epidemiology of Wastewater (PREViEW)

Aug 2022 – Present

- Conduct research on forms of viruses and their persistence with regards to various environmental factors (such as surfactants, temperature, and ammonia) in wastewater.
- Perform experiments to evaluate and compare methods of nucleic acid extraction and concentration from wastewater.
- Mentor undergraduate research assistants in the lab.

Berkeley, CA

University of Minnesota - Twin Cities

Undergraduate Research Assistant

Project: Biochar for Nutrient Removal from Municipal Wastewater (Behrens' Lab)

Sep 2021 – Aug 2022

- Operated and prepared wastewater media for sequencing batch reactors.
- Analyzed nitrate, nitrite, and ammonium using segmented flow analysis and UV-Vis spectrophotometry to characterize nutrient removal capacities of biochar.

Project: Hydrologic and Hydraulic Characteristics of Effective Sea Lamprey Barriers

Jan 2022 – May 2022

- Conducted literature review on the efficacy of current sea lamprey barrier technologies.
- Designed and performed fluid mechanics experiments with model barriers in hydraulic flumes.
- Analyzed the time-averaged and root-mean-square velocities of the water flow due to barriers' impact, lamprey detachment forces, and turbulent kinetic energy from the experiment results.

Project: Determination of Biomethane Generation Potential in the Domestic Municipal Waste Flow of Hanoi, Vietnam

Jan 2021 – Nov 2021

- Sampled organic municipal waste, conducted calculations based on the samples' waste composition, and performed biochemical methane potential tests on a sample of organic matters resembling the above waste to measure its anaerobic digestion capability.

Hanoi University of Civil Engineering

Environmental Engineering & Management Intern

Hanoi, Vietnam

May 2019 – Jan 2021

- Participated in preparation of five environmental engineering research papers, manuals, and reports.
- Contributed to environmental management consultancy contracts of Institute of Environmental Science and Engineering, Hanoi University of Civil Engineering
- Participated in site visits to wastewater treatment plants, clients' factories, and contaminated sites. Conducted field surveys of municipal waste management.

Office of Undergraduate Research, UC Berkeley

SURF Graduate Student Mentor

Berkeley, CA

Jan 2023 – Aug 2023

- Led draft proposal workshops and weekly office hours and for applicants of the Summer Undergraduate Research Fellows (SURF) program.
- Hosted 2 summer workshops on research skills with an attendance of 50 SURF fellows.
- Organized and facilitated the SURF program's orientation, weekly footnotesize group meetings, and students' final presentations.

SMART Learning Commons, University of Minnesota Libraries

Peer Tutor Mentor

Minneapolis, MN

Sep 2019 – May 2022

- Assisted over 100 students' learning inquiries in Math and Chemistry.
- Observed and evaluated 12 SMART peer tutors with 1-on-1 consultation sessions and written reports.
- Led a 60-minute staff meeting every semester for additional training of peer tutors.

College of Science and Engineering, University of Minnesota

Undergraduate Teaching Assistant

Minneapolis, MN

Sep 2021 – Aug 2022

- Graded assignments for CECE 3101 (Computer Applications I) and CECE 3501 (Introduction to Environmental Engineering).
- Prepared and presented teaching materials with the instructor, and managed class logistics for CSE 1001 (First-year Experience).

International Student Consultant

May 2021 – Aug 2021

- Assisted 80 incoming international students during orientation and before their US arrival.
- Provided logistical support to the CSE Academic Advising office in facilitating activities and preparing for orientation.

SKILLS

Laboratory: Digital PCR, DNA/RNA extraction, UV-Vis spectrophotometry, sequencing flow analysis, sequencing batch reactor operation, water chemistry analysis (alkalinity, hardness, microbial level, COD/BOD concentrations).

Software: R, R Markdown, MATLAB, Microsoft Excel.