# Allie (Minh-Anh) Nguyen

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#### **EDUCATION**

#### University of California, Berkeley

Berkeley, CA

Ph.D. in Environmental Engineering — GPA: 4.00/4.00

Aug 2022 - May 2027 (Expected)

M.S. in Environmental Engineering

Aug 2022 - Dec 2023

University of Minnesota - Twin Cities B.Eng in Environmental Engineering

Minneapolis, MN

Aug 2018 - May 2022

Work Experience

## University of California, Berkeley

Berkeley, CA

Graduate Student Researcher

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

Aug 2022 - Present

- Conduct research on different forms of 8 viruses and their decay in the presence of surfactants in wastewater.
- Perform experiments to evaluate and compare methods of nucleic acid extraction and concentration from wastewater.
- Mentor undergraduate research assistants in the lab.

## University of Minnesota - Twin Cities

Minneapolis, MN

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

Hanoi, Vietnam

Environmental Engineering & Management Intern

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

Berkeley, CA

SURF Graduate Student Mentor

Peer Tutor Mentor

Jan 2023 - Aug 2023

- Led draft proposal workshops and weekly office hours 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 group meetings, and students' final presentations.

## SMART Learning Commons, University of Minnesota Libraries

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

Minneapolis, MN

Undergraduate Teaching Assistant

 $Sep \ 2021 - May \ 2022$ 

- Graded assignments for 60 students in CEGE 3101 (Computer Applications I) and CEGE 3501 (Introduction to Environmental Engineering).
- $\bullet\,$  Prepared, taught, and managed class logistics for 30 students in 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/RStudio, R Markdown, MATLAB, Microsoft Excel.