

Yeyang (Benson) Zu

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1539 Beloit Ave
Los Angeles, CA

Education

University of California, Los Angeles

Sep 2017- June 2021

Bachelor of Environmental Science, Minors in Environmental Engineering and Statistics

Dean's List (Fall 2017 – Spring 2020); GPA: 3.88

Relevant Coursework: Solar Energy Harvesting; Machine Learning; Thermodynamics & Fluid Mechanics.
Data Programming with R; Computer Programming with MATLAB

Publication:

1. Valenca, R., Borthakur, A., **Zu, Y.**, Matthiesen, E. A., Stenstrom, M., Mohanty, S. K. Forthcoming. Relative importance of biochar properties on Escherichia coli removal: Implication on biochar selection for use in biofilters. *Journal of Environmental Engineering*, DOI: 10.1061/(ASCE)EE.1943-7870.0001843.
2. Valenca, R., Le, H., **Zu, Y.**, Dittrich, T., Tsang, D.C.W., Dutta, R., Sarkar, D., and Mohanty, S. (202X) Nitrate removal uncertainty in stormwater control measures: Is the design or climate a culprit? [Submitted: October 30, 2020]

Research & Professional Experience

Dongda Institute of Smart Environment and Energy, Los Angeles, CA

Sep 2020 – Present

Renewable Energy Network Design Intern

- Design Photovoltaic/Thermal systems by adding DC compressor to improve its heating water efficiency
- Collaborate with the integrator on the installation plan with different research infrastructures
- Explore remote monitoring approaches to oversee and fix the solar hybrid system

UCLA Institute of Environmental Science, Los Angeles, CA

Oct 2019 – Jun 2020

Patagonia Reservation Team Lead Data Analyst

- Analyzed satellite images to predict the extent of invasive willow populations along the Limay River
- Modelling remote sensing data with the Random Forest model with open public sources
- Designed a R script for the classification of willows to our partner the Neuquén Center for Applied Ecology
- Fundraised more than \$13,000 to support traveling cost of ground-truth process in Argentina

UCLA Department of Civil and Environmental Engineering, Los Angeles, CA

Mar 2019 – Present

Engineering Critical Zone Lab Undergraduate Intern

- Design “NTO Removal with Fungal Biofilter” experiment under the supervision of a Ph.D. candidate
- Conduct contaminants removal project to improve VOCs removal efficiency by adding biochar
- Independently conduct experiments that link biochar properties with its bacterial removal capacity
- Produce Agar plates and Quantifying the *E.coli* data samples by using spread-plate methods

Santa Monica Mountain Stations, Los Angeles, CA

Jan 2019 – July 2019

Mountains Restoration Trust Data Collector for Post-fire Research Project

- Ground-truthed the recovery states of flora and fauna with plot method on the Santa Monica Mountains
- Collected plant samples twice a month to confirm and evaluate the biodiversity of mountains
- Updated modelling database of the central repository to track the short-term ecological recovery

Additional Information

Skills

Computer Programming: Python, R language, MATLAB, ArcGIS, TRNSYS
Lab: Enzyme Assays; Spectroscopy; Plate-plot, Centrifuge; Autoclave; pH/DO Meter
Languages: English (fluent); Mandarin (native)

Professional Affiliations

UCLA Chapters

American Society of Civil and Environmental Engineering (ASCE); Environmental Student Network (ESN); American Water Works Association (AWWA); Carbon Neutrality Initiative Campaign; RYE Fraternity