Yeyang (Benson) Zu

Contact Details **M: +1 (818) 588 6552** **1539 Beloit Ave**
E: zuyeyang@ucla.edu **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; Thermodynamics & Fluid Mechanics; Machine Learning; Data Analysis with R; Regression and Classification Modelling with R/Python/MATLAB

Publication:

1. Valenca, R., Le, H., **Zu, Y**., Dittrich, T., Tsang, D., Dutta, R., Sarkar, D., Mohanty, S.K. "Nitrate Removal Uncertainty in Stormwater Control Measures: Is the Design or Climate a Culprit?" Water Research, Pergamon, 24 Dec. 2020, https://doi.org/10.1016/j.watres.2020.116781
2. Valenca, R., Borthakur, A., **Zu, Y.,** Matthiesen, E. A., Stenstrom, M., Mohanty, S. K. "Biochar Selection for Escherichia Coli Removal in Stormwater Biofilters." Journal of Environmental Engineering, 24 Nov. 2020, ascelibrary.org/doi/abs/10.1061/(ASCE)EE.1943-7870.0001843?ai=tq.

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**

The SEALab Research Assistant 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
- Explore models that link biochar properties with its bacterial removal capacity by data mining
- 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, SQL, TRNSYS **Lab:** Enzyme Assays; Spectroscopy; Plate-plot, Centrifuge; Autoclave; pH/DO Meter **Languages:** English (fluent); Mandarin (native)
Professional Affiliations	American Society of Civil Engineers (ASCE); Environmental Student Network (ESN) ; American Water Works Association (AWWA); Carbon Neutrality Initiative Campaign;
UCLA Chapters	RYE Fraternity