

Cal Poly Humboldt.

OUTSTANDING ACADEMIC, RESEARCH IN STEM, & SERVICE/LEADERSHIP ANGEL ORTIZ • ENVIRONMENTAL RESOURCES ENGINEERING



Angel Ortiz is first-generation college student and Environmental Resources Engineering major at Cal Poly Humboldt, with a minor in Native American Studies: Law and Policy. Angel participated in the Hardware, Embedded Software, and Analytics for Environment Quality Monitoring REU at Marquette University. With Dr. Kaushik Venkiteshwaran and Dr. Daniel Zitomer, they researched pre-treatments for the anaerobic co-digestion of Polylactic acid and food waste to increase bioenergy production. In a separate project at Humboldt, Angel worked with Dr. Margaret Lang and Dr. Jasper Oshun to develop a groundwater model to increase understanding of water availability in fractured rock designed to meet irrigation needs in the agrarian community of Zurite, Perú. To culminate this research, Angel traveled to Perú to collect field measurements. In the summer of 2022, Angel participated in research to determine the effectiveness of meadow restoration to groundwater and ecosystem adaptation to wildfires in the Plumas National Forest. In addition to her research, Angel has worked as an Instructional Student Assistant for the Engineering department and is a member of the Indian Natural Resources, Science & Engineering Program (INRSEP) and the Society of Hispanic Professional Engineers. She has also spent time working with K-12 students, designing an instructional desalination device for a science classroom, providing music instruction, and serving as a camp counselor. Angel plans to pursue a PhD combining Indigenous Environmental Science and environmental engineering to increase the understanding of environmental issues through existing local knowledge.

OUTSTANDING ACADEMIC & RESEARCH IN STEM DAVID LOPEZ • CELLULAR AND MOLECULAR BIOLOGY



David Lopez is a Cellular and Molecular Biology major and chemistry minor at Cal Poly Humboldt. David was born and raised in South Los Angeles. He is the first member of his large Chicano family to attend a university, and the first to move away (600mi) for school. Growing up, David always had a love for sports. A hands-on Sports Medicine program in high school kindled his love for science. Once he began work with Dr. Jenny Cappuccio in her lab at Cal Poly Humboldt, he found his passion for research. David conducted research in the Cappuccio Lab as a CSUPERB Presidential scholar, where he worked to develop synthetic membranes to study membrane bound G-protein Coupled Receptors. Mr. Lopez also conducted research in the Jewett Lab at Northwestern University, focused on engineering biological systems involved in protein synthesis and metabolism, as part of the Synthetic Biology REU. David served as Associated Students Administrative Vice-president, resident hall advisor, and Biology mentor at Cal Poly Humboldt. David is a member of the Indian Natural Resources, Science and Engineering program (INRSEP) and American Society for Microbiology. Mr. Lopez plans to pursue an MD/PhD. In his free time, David enjoys going to farmers market, long distance hikes in the redwoods that surround his home institution, watching sunsets from any vista point -- usually the ocean, and spending long breaks with his family. He is a caffeine enthusiast and fur father to his 14lb kitty cat, who he rescued near his university.

OUTSTANDING RESEARCH IN STEM & SERVICE/LEADERSHIP

CRISTINA WINTERS • FORESTRY (RESTORATION)



Cristina Winters is a Forestry major at Cal Poly Humboldt with a concentration in restoration. After working seasonal jobs with the National Park Service, US Forest Service, California State Parks, and AmeriCorps in Southern California and in Humboldt County, she returned to school at College of the Redwoods and transferred to Humboldt. She earned a place in the Outdoor Leadership in Forestry scholarship program, where she learned leadership skills, took recreation administration classes, and engaged in service-learning projects on campus and in the community; completing the Outdoor Assistantship program at Humboldt in addition to Forestry coursework. In 2021-2022, she worked as a research assistant in the Restoration and Applied Ecology lab on a project focused on the effects of prescribed fire in old-growth pines in the southern Sierra Nevada with Dr. Kerry Byrne and Dr. Harold Zald. In summer 2022, she completed the Summer Research Program in Ecology at the Harvard Forest, under the direction of Audrey Barker Plotkin, where she studied and presented her work on underground carbon cycling under warming temperatures, with a focus on maple root exudation and respiration. She also served as the secretary for the Cal Poly Humboldt Forestry Club, and earned the Robert Cary Forestry Scholarship, Gayleen Smith Memorial Scholarship, and Charles G. & Helen W. Schoeber Scholarship. Cristina is a member of the Indian Natural Resources, Science & Engineering Program (INRSEP), Society of American Foresters, and Xi Sigma Pi forestry honor society. She is a proud first-generation college student and first-generation American.

OUTSTANDING ALUMNUS RYAN MATILTON • WILDLIFE

Ryan Matilton is a descendant of both the Na:tinixwe (Hupa) and Pueleeklaa (Yurok) peoples of Northern California. He was raised along the Trinity and Klamath Rivers and holds a deep connection to his study area. Ryan's research on bat diversity and activity in the Klamath River Basin gives insight on the impact of dams to riverine ecosystems before and after their removal. Ryan monitors bat species along the Klamath River using ultrasonic detectors, recording bat calls and analyzing them with software which identifies individuals down to species. Ryan began his research as an undergraduate LSAMP scholar. After receiving his Wildlife degree in Fall 2021, he moved directly into the Wildlife graduate program. He is eager to involve undergraduate students in his fieldwork and data analysis with the hope of inspiring a love for a wildlife species typically viewed with malice. His values heavily reflect the traditions of the Hupa and Yurok tribes. Ryan feels it is his privilege, as well as his duty, to cater to the natural world in the same way it has catered to us since time immemorial. By recommendation from the Indian Natural Resources, Science & Engineering Program (INRSEP) Ryan presented at the Native Youth Climate Adaptation Leadership Congress (NYCALC) in Shepherdstown, West Virginia about his research and how it relates to Traditional Ecological Knowledge (TEK). Ryan's research is supported by grants from Humboldt Research and Creative Projects for Equity and Justice (RCPEJ), and the California North Coast Chapter of The Wildlife Society (CNCCTWS).



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