

ANNAPURNA POST-LEON

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EDUCATION

Reed College

August 2016 – May 2020

B.A. in Biology

University of California, Davis

June 2015 – April 2016

Advanced calculus coursework

RESEARCH EXPERIENCE

Research Assistant

September 2020 – Present

Reed College

Portland, OR

- Currently writing multiple manuscripts for publication in the lab of Assistant Professor of Biology Aaron Ramirez
- Analysing data on bigcone Douglas-fir, a rare conifer native to the mountains of southern California, collected by myself and other students in the Ramirez Lab in summer 2018

Post-Baccalaureate Summer Research Fellow

June 2020 – August 2020

Reed College

Portland, OR

- Summer research in the lab of Dr. Aaron Ramirez
- Explored long-term trends in fog and the effects of fog on canopy greenness at 24 sites along the Pacific west coast
- Worked closely with another student to use R to analyse remote sensing data

Undergraduate Senior Thesis in Biology

September 2019 – May 2020

Reed College

Portland, OR

- Collaborated with Dr. Aaron Ramirez to create a hypothesis-based research proposal for a yearlong experimental thesis
- Explored the hypothesis at some Pacific Northwest tree species can absorb water through their bark to mitigate drought stress
- Used academic literature to develop and execute laboratory protocols to test hypothesis
- Wrote and successfully defended thesis to an interdisciplinary panel of professors in May 2020

DAAD RISE Germany Summer Research Internship in Forestry

May 2019 – August 2019

University of Göttingen

Göttingen, Germany

- Worked with PhD candidate Amani Lwila on his dissertation project on the effects of tree species composition on root biomass and area in managed forests in Germany
- Collected and prepared soil samples, identified roots by species, and imaged roots
- Currently in the beginning stages of co-authoring a manuscript with Lwila

Undergraduate Summer Research Fellow

June 2018 – August 2018

Reed College

Portland, OR

- Carried out fieldwork with Dr. Aaron Ramirez on the drought physiology of mature bigcone Douglas-fir in southern California, as well as on the drought physiology of bigcone Douglas-fir seedlings in the Reed College greenhouse
- Explored the effects of elevation and aspect on bigcone Douglas-fir drought stress

Marttala Memorial Herbarium Summer Research Fellow*Reed College*

June 2017 – August 2018

Portland, OR

- Prepared specimens for the Reed herbarium
- Learned to prepare, mount, and access herbarium specimens left to Reed College by the late alumnus Vernon Marttala

MENTORSHIP & TEACHING EXPERIENCE

NearPeer Mentor*Reed College*

February 2020 – March 2020

Portland, OR

- Volunteered to mentor a middle-school student in the pilot rollout of the NearPeer Mentorship Program
- Presented my thesis research to students and their families and was matched up based on interest
- Worked with my mentee to design and carry out a science fair project relevant to my thesis that she was interested in, exploring the differences in hydraulic conductivity of conifers and angiosperms
- Explained basic concepts behind plant water movement to mentee
- Showed mentee how to take hydraulic conductivity measurements of plant stems

Science Outreach Teacher*Reed College*

September 2018 – March 2020

Portland, OR

- Taught a place-based, age-appropriate curriculum focused on the science and impacts of climate change to fourth and fifth graders at disadvantaged schools in Portland
- Taught as first a team member and then a lead on two- and three-person student teaching teams
- As a lead teacher, organized and planned lessons and led weekly prep meetings prior to each lesson

Leaves to Landscape Laboratory Teaching Assistant*Reed College*

September 2019 – December 2019

Portland, OR

- Assisted weekly with laboratory and field research projects for Leaves to Landscapes, an upper-level course in plant ecology taught by Dr. Aaron Ramirez
- Helped plan overnight camping trips, explained ecological and botanical concepts to students, assisted with equipment set-up and class project data collection, and graded field quizzes

Introductory Chemistry Laboratory Teaching Assistant*Reed College*

January 2019 – April 2019

Portland, OR

- Helped weekly with students' laboratory experiments for introductory chemistry
- Assisted with equipment and materials set-up, graded lab notebooks, and explained chemistry concepts
- Gained experience working with other undergraduate students and explaining scientific concepts in multiple ways

Writing Tutor*Reed College*

September 2019 – May 2020

Portland, OR

- Individual tutoring for undergraduate students at Reed College
- Worked closely with students to help them construct strong arguments for academic papers in a wide variety of fields
- Proofread students' papers for grammatical, structural, and content errors

FELLOWSHIPS & AWARDS

- Milton L. Fischer Memorial Field Research Award** June 2020 – August 2020
Reed College
Competitive fellowship offered through the Reed College Biology Department for summer field research
- DAAD RISE Germany Summer Research Internship** May 2019 – August 2019
University of Göttingen
Internationally competitive fellowship offered through the DAAD RISE Germany program to fund summer science and technology internships in Germany for undergraduate students from the US, Canada, Ireland, and the UK.
- Arch and Fran Diack Student Field Research Award** June 2018 – August 2018
Reed College
Competitive fellowship offered through the Reed College Biology Department for undergraduate summer field research
- Marttala Memorial Herbarium Summer Research Fellowship** June 2017 – August 2017
Reed College
Fellowship offered through the Reed College Herbarium for undergraduate students to learn how to prepare herbarium samples left to the College by alumnus Vernon Marttala

ACADEMIC COMMENDATIONS

- Commendation for Excellence in Scholarship** 2019 – 2020 academic year
Commendation for Excellence in Scholarship 2018 – 2019 academic year
Commendation for Exceptional Performance on Junior Qualifying Exam Spring 2019

PRESENTATIONS

- “Effects of Fog on Coastal Vegetation Health in Washington, Oregon, and California”**
Reed College Summer Research Lightning Talks August 28, 2020
- “Barking Up the Right Tree: Bark Water Uptake in Bigleaf Maple, Douglas-fir, and Coast Redwood”**
Students Talking About Research, Reed College Biology Department February 21, 2020
- “Wildfire, Drought, Forests, and Climate Change”**
University of Göttingen Department of Forestry August 12, 2019
- “Effects of Elevation and Aspect on Seasonal Drought Response in Bigcone Douglas-fir”**
Reed College Summer Research Poster Session August 31, 2018

SKILLS

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| Computer Programs | R Statistical Packages, QGIS |
| General Research | Academic writing, protocol development, data analysis, collaboration, mentorship, teaching, presenting |
| Plant Physiological Measurements | Water potential using pressure chamber, gas exchange using LiCor and leaf porometer, chlorophyll fluorescence using fluorometer, hydraulic conductivity using Sperry apparatus, pressure-volume curves, vulnerability curves, soil coring, tree root species identification |