

# ANNAPURNA POST-LEON

Portland, OR

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## EDUCATION

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**Reed College**

*August 2016 – May 2020*

B.A. in Biology

**University of California, Davis**

*June 2015 – April 2016*

Advanced calculus coursework

## RESEARCH EXPERIENCE

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**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

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**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

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- 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

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- 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

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- “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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| <b>Computer Programs</b>                | R Statistical Packages, QGIS  |
| <b>General Research</b>                 | Academic writing, protocol development, data analysis, collaboration, mentorship, teaching, presenting  |
| <b>Plant Physiological Measurements</b> | 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 |