

# Anne Marie Saunders

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## Education

<b>Imperial College London</b>	<i>MSc Computational Methods in Ecology and Evolution</i>	End date: Sept. 2020
<i>Modules:</i>	Statistics in R, Generalized Linear Models, Maths for Biology, Ecological Modelling, Evolutionary Modelling, Maximum Likelihood, Bayesian Statistics, Python, R, GIS, Genomics and Bioinformatics, High Performance Computing, Biological Data Structures and C	
<i>Marks Awarded:</i>	Coursework	85%
	Exam 1	83%
	Exam 2	83%
<b>University of Virginia</b>	<i>Bachelor's in Biology</i>	Graduated May 2019
Virginia, U.S.A	Concentration in Environmental and Biological Conservation	
<i>GPA:</i>	Final Year: 3.97/4	Cumulative: 3.41/4

## Research Experience

August 2017	<b>Research Assistant</b>
May 2019	<i>Bergland Lab of Evolutionary Genetics- Charlottesville, VA, USA</i>
	<b>Supervisors:</b> Alan Bergland and Karen Barnard-Kubow
	<ul style="list-style-type: none"><li>* Managed time independently to fulfill responsibilities including feeding and cleaning schedules</li><li>* Performed detailed taskwork, such as algae cell counts, microscopic photography, and centrifugation, with accuracy and care</li><li>* Instructed incoming research assistants in lab procedures</li><li>* Traveled internationally from Virginia to Dorset to collect samples from remote field site</li><li>* Conducted independent research project in addition to part-time work responsibilities and full-time class schedule (See 2019 project "Inference of Population Ancestry..." below)</li></ul>
May 2018	<b>Research Assistant</b>
Dec. 2018	<i>Cascade Research Group- Charlottesville, VA and Land O' Lakes, WI, USA</i>
	<b>Supervisors:</b> Michael Pace and Cal Buelo
	<ul style="list-style-type: none"><li>* Used automated and manual sampling techniques to collect chemical, physical, and biological data from lake study sites</li><li>* Processed samples using filtration, drying, spectroscopy, and fluorometry</li><li>* Conducted detailed data entry and data verification</li><li>* Cultivated close personal and professional relationships with co-workers while living and working together on-location at remote field station</li><li>* Conducted independent research project in addition to full-time work responsibilities (See 2018 project "Suitability of Chlorophyll..." below)</li></ul>

## Awards and Honors

2018, 2019	<b>Dean's List of Distinguished Students</b> , University of Virginia
	Dean's List recognizes students who achieve academic excellence by maintaining a minimum GPA of 3.5 (equivalent to a First) while taking a full courseload of approximately 5 classes per semester

## Skills and Interests

**Technical:** R, Python, C, Linux, Unity 3D, ArcGIS, QGIS, Git  
**Communication and Presentation:** Microsoft Office, LaTeX  
**Language:** English (native), French (conversational)  
**Interests:** Cooking, hiking, bluegrass fiddle

## Projects

		<b>Skills</b>
2020	<b>Predicting Disease Vector Dynamics During Climate Change</b> My thesis research involves the estimation of mosquito abundance dynamics due to changing climactic variables. I am utilizing large and messy openly-sourced datasets of climactic variables and mosquito abundance and will conduct time series analysis of these variables using generalized additive and linear models. My project requires regular remote collaboration with supervisors.	R, Linux, Python, Presentation
2019	<b>Inference of Population Ancestry of Aquatic Invertebrates</b> Used bioinformatic tools (admixture, APE) in R and command line to infer demographic history of sample populations of <i>Daphnia pulex</i> . Created original maps of study site by georeferencing open source spatial data. Presented on findings to laboratory colleagues	R, Linux, QGIS, Presentation
2019	<b>VR Learning Environment Profiling Leishmaniasis</b> Collaborated as team lead of 3 person group building a virtual reality interactive "museum" profiling the biological background and public health issues surrounding leishmaniasis and healthcare access in the Middle East and North Africa. Planned project timelines and liasoned with research and presentation groups to adhere to larger team goals.	Unity 3D, Project Management
2018	<b>Suitability of Chlorophyll as a Biomass Indicator</b> Challenged existing assumptions of algal chlorophyll expression in lake layers by investigating reliability of chlorophyll measurements as a proxy for primary producer biomass. Used R for data analysis and model development. Presented research at a regional seminar and presented a poster at SEPEEG conference (October 2018).	R, Presentation

## Leadership Experience

May 2020	<b>COVID-19 Recovery Hackathon</b> Hosted by Imperial College Business School <ul style="list-style-type: none"><li>* Planned, developed, and pitched prototype of novel application to host games and icebreaker activities for university students taking online courses</li><li>* Partnered remotely with international team of strangers with diverse backgrounds</li><li>* Volunteered to quickly learn new technical skills to fill gaps in team strengths</li></ul>	
Sept 2019 present	<b>Minister of Transport</b> <i>Imperial College London Student Union- Ascot, UK</i> <ul style="list-style-type: none"><li>* Organized recruitment, training, and certification of 12 students to drive campus van</li><li>* Designed a driver incentivitation program to fairly reward drivers for their contributions to the postgraduate community</li><li>* Improved the transparency and efficiency of rideshare system by implementing electronic coordination of drivers and riders</li><li>* Worked with Union Exec to develop financial system for the division of petrol costs</li></ul>	
May 2019 Sept 2019	<b>Wrangler Trail Guide</b> <i>Laramie River Ranch- Jelm, CO, USA</i> <ul style="list-style-type: none"><li>* Taught and guided guests from a variety of backgrounds on horseback through the Colorado wilderness</li><li>* Used creative problem solving to guard the safety of guests and horses under pressured situations of extreme weather, medical challenges, and wild animal encounters</li><li>* Motivated and negotiated with guests to follow directions and stay calm during frightening situations</li><li>* Collaborated closely with a team of 5 other wranglers with diverse personality types to thoroughly and efficiently keep timelines</li></ul>	

## Certifications

2018	Physical Science Responsible Conduct of Research- <i>CITI Program</i>
2019	Adult and Pediatric First Aid/CPR/AED- <i>American Red Cross</i>

References Available Upon Request