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CIRES
University of Colorado Boulder

Alex Borowicz
Graduate Research Fellow

255 18th Street, No. 402
Brooklyn, NY 11215
alex.j.borowicz@gmail.com
P +1 262.339.5413
alex.borowicz.com

Re: CIRES/Earth Lab Research Data Scientist

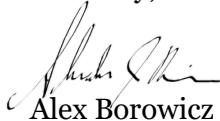
Dear Search Committee Members,

I am writing as a candidate for the position of Research Data Scientist. I am currently a NSF Graduate Research Fellow at Stony Brook University where I am completing a PhD in Ecology & Evolution, with an expected graduation in May 2021. I bring broad experience with quantitative methods for marine and coastal remote sensing and analysis and an enthusiasm for developing new approaches to complex environmental questions. As an enthusiastic environmental data scientist, I can bring my experience with satellite and aerial imagery processing and analysis, my background in ecology, and my passion for innovating around environmental data and methods to Earth Lab.

Much of my recent work has revolved around remote and landscape-level sensing of complicated coastal landscapes. I have developed workflows for automated deep learning-based satellite imagery analysis and small-object detection in UAV aerial imagery for whales and penguins and have built methods to draw in and fuse data from social media, community science platforms, and field surveys to improve ecological insights using AI and Bayesian methods. I enjoy finding innovative solutions to problems in data-poor systems and bringing non-traditional data to bear on environmental questions. I work fluently in R, including for Bayesian data analysis, and am comfortable in Python for machine-learning programming. I am particularly passionate about providing rich and beautiful data visualizations to communicate clearly and easily to decision-makers and communities.

As a data scientist working within the discipline of ecology, I have experience communicating the nuances of remote sensing, computer vision, and spatial statistics to other scientists within the discipline and similarly the ideas of environmental science and ecology to collaborators in computer science and robotics. I have direct experience teaching analytical methods to undergraduate and graduate students.

Sincerely,



Alex Borowicz