Vincent O'Leary

☑ vincent@f-m.fm

vincentoleary.com

in linkedin.com/in/vjoleary

Personal Statement

Seeking a position at the expiration of my term with Americorps that will allow me to maximize my 10+ years of experience in science communication and mentoring in order to connect environmental policy and research with the communities and people they affect.

Professional History

Sep 2018 - Sep 2019 Americorps VISTA (Jon Doctorick)

Center for STEM Education and Career Development, Carnegie Science Center, Pittsburgh, PA

Developing a guide for mentor programming at the Carnegie Science Center Fab Lab that documents best
practices, workflows, and examples that other institutions will be able to use as guidelines in creating similar
mentoring programs

Jun - Jul 2018 Truman Scholarship Summer Institute Intern (Reid Sherman, PhD.)

U.S. Global Change Research Program, White House Office of Science and Technology Policy, Washington, DC

• Recognized for exemplary efforts towards the release of Volume II of the Fourth National Climate Assessment, a nonpartisan government effort to identify and explain the risks of climate change

Jun - Aug 2017 NOAA Hollings Scholar Intern (Chris Amante, PhD.) National Centers for Environmental Information (NCEI), NOAA, Boulder, CO.

• Developed a global model of elevation with public bathymetric and topographic datasets using ArcGIS, to be made available as the first update to NOAA's standard ETOPO1 model in 10 years

Mar - Sep 2016 Biodiversity Informatics Research CO-OP (Steve Dilliplane)
Center for Systematic Biology and Evolution, Academy of Natural Sciences (ANSP), Philadelphia, PA

 Created an automated work-flow using MySQL to import and standardize several distinct Symbiota, Microsoft Excel, and FileMaker Pro databases into a single Specify repository, allowed for data to be searched alongside all departments for the first time

Mar - Sep 2015 Geographic Information System (GIS) Research CO-OP (Jerry Mead, PhD.) Patrick Center for Environmental Research, Academy of Natural Sciences (ANSP), Philadelphia, PA

- Visualized snail biodiversity for 600+ sampled locations in Jamaica using ArcGIS, QGIS, and R
- Developed a model for biodiversity of snails based on known locations, climate, and geologic factors

Jun - Aug 2014 Students Tackling Advanced Research (STAR) Scholar (Daniel Duran, PhD.) Office of Undergraduate Research, Drexel University, Philadelphia, PA

• Forecasted potential range expansion of invasive crayfish using MaxEnt and publicly available environmental data

Dec 2013 - Dec 2017 Curatorial Assistant (Ted Daeschler, PhD.)
Vertebrate Paleontology Collection, Academy of Natural Sciences (ANSP), Philadelphia, PA

- Migrated 8800+ handwritten records into a FileMaker Pro database and created a workflow to normalize data to be shared online for the first time
- Improved documentation for the new database and workflows performed by student volunteers

Teaching and Outreach

2018 English for Speakers of Other Languages Instructor St. Thomas Aquinas Catholic Community Center, Philadelphia, PA

• Led small group discussion with 15+ adults for 2 hours per week during English Language instruction

2017 - 2018 **High School STEM Mentor** Gaining Early Awareness and Readiness for Undergraduate Programs (GEAR UP), Philadelphia, PA

• Mentored 50+ students in 9th and 10th grade science classrooms for 8 hours per week

2016 - 2017 Drexel Community Scholar for After-school Learning

Lindy Center for Civic Engagement, Drexel University, Philadelphia, PA

• Coordinated after-school STEM activities for 30+ students in 3rd and 4th grade for 5 hours per week

2014 - 2015 Contributing Instructor for Community Based Learning Curriculum

College of Arts and Science, Drexel University, Philadelphia, PA

• Created a new community hybrid course for 18 students at Drexel University

2008 - 2013 Educator

Education Department, Oglebay Good Zoo, Wheeling, WV

• Directed educational activities including summer camps for 4 to 6 year old children for 40 hours per week

Education

2013 - 2018 **Drexel University**, Pennoni Honors College, Philadelphia, PA GPA - 3.5

BS Environmental Science, minor in Geoscience

Relevant Courses: Biogeography, Biodiversity, Conservation Biology, Phylogenetic Analysis, Physical Geology, Earth System Processes, GIS & Environmental Modeling, Scientific Data Analysis, Statistics and Probability, Community Mobilization and Advocacy, American Political Thought, Systems Approach to Global Challenges

Continuing education and certificates

- Nonprofit Board Prep Program, Young Involved Philadelphia (YIP), Philadelphia, PA (2018)
- Rebuilding Native Nations, Native Nations Institute at University of Arizona, Tuscon, AZ (2017)

Skills

Education and Communication - Public speaking, Verbal and written communication, Event planning, Curriculum development, Childhood education in formal and informal environments, Classroom management, Technical presenations, Building stakeholder engagement

Computer - ArcGIS, GDAL/OGR, QGIS, Python, R, OpenRefine, SQL, FileMaker Pro, Git/GitHub, Microsoft Office Suite (Word, Excel, PowerPoint), Outlook email, Markdown (this resume is written in Markdown), HTML, LaTeX, Bash and shell scripting

Field and Lab - Managing lab notebooks, Titration, Filtration, RTK/PPK and laser level surveying, Open channel hydraulic surveys, Backpack electrofishing, Radio-telemetry, Scanning electron (SEM) and petrographic microscopy

Awards and Grants

2018 - James C. Gaither Junior Fellows program university nominee

2017 - Harry S. Truman Scholarship

2017 - Morris K. and Stewart L. Udall Scholarship

2017 - Society for Science and the Public Advocacy Grant (\$3,000)

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- 2017 Drexel University Arcadia Grant (\$3,000)
- 2016 National Oceanic and Atmospheric Administration (NOAA) Ernest F. Hollings Scholarship
- 2016 Drexel University ExcITe Center Seed Fund Research Grant (\$5,000)
- 2016 Drexel University Steinbright Corporate Partners Grant (\$4,000)
- 2013 Finalist of the Intel (now Regeneron) Science Talent Search by Society for Science and the Public

Publications

- 3 Amante, C., V. O'Leary (TBD), GLOBATO: An enhanced global relief model at 30 arc-seconds resolution. Report in preparation for publication by NOAA.
- 2 Seltmann, K., S. Lafia, D. Paul, S. James, D. Bloom, N. Rios, S. Ellis, U. Farrell, J. Utrup, M. Yost, E. Davis, R. Emery, G. Motz, J. Kimmig, V. Shirey, E. Sandall, D. Park, C. Tyrrell, R. Thackurdeen, M. Collins, V. O'Leary, H. Prestridge, C. Evelyn, B. Nyberg (2018), Georeferencing for Research Use (GRU): An integrated geospatial training paradigm for biocollections researchers and data providers. Research Ideas and Outcomes 4: e32449. doi: 10.3897/rio.4.e32449
- 1 (Staff contributor) USGCRP, 2018: Impacts, Risks, and Adaptation in the United States: Fourth National Climate Assessment, Volume II [Reidmiller, D.R., C.W. Avery, D.R. Easterling, K.E. Kunkel, K.L.M. Lewis, T.K. Maycock, and B.C. Stewart (eds.)]. U.S. Global Change Research Program, Washington, DC, USA, 1515 pp. doi: 10.7930/NCA4.2018

Oral Presentations

- 11 **O'Leary**, **V**. (2018), How to create a new map of the world. Presented at Week of Undergraduate Excellence, Drexel University, Philadelphia, PA, 14-18 May.
- 10 **O'Leary, V**., C. Amante (2018), GLOBATO: An enhanced global relief model at 30 arc-seconds resolution. Presented at Student Conference on Global Challenges, Drexel University, Philadelphia, PA, 1 Mar.
- 9 **O'Leary, V**., C. Amante (2017), GLOBATO: An enhanced global relief model at 30 arc-seconds resolution. Presented at Science and Education Symposium, NOAA, Silver Springs, MD, 1-3 Aug.
- 8 Shirey, V., V. O'Leary, S. Dilliplane (2017), More Than a Map: Adventures in Biodiversity Informatics Visualization. Presented at 2017 Annual Meeting, SPNHC, Denver, CO, 18-24, Jun.
- 7 O'Leary, V (2017), Digitization of the ANSP Vertebrate Paleontology collections. Presented at Week of Undergraduate Excellence, Drexel University, Philadelphia, PA, 1-5 May.
- 6 **O'Leary, V** (2017), Building Communities around a Shared River. Presented at Week of Undergraduate Excellence, Drexel University, Philadelphia, PA, 1-5 May.
- 5 **O'Leary, V** (2017), From Online to On the River: Opportunities for Data Storytelling. Presented at River Research Seminar, University of Pennsylvania, Philadelphia, PA, 28 Apr.
- 4 O'Leary, V., M. Sei, G. Rosenberg and J. Mead (2016), Modeling species distributions of landsnail biodiversity. Presented at National Conference on Undergraduate Research, University of North Carolina, Asheville, NC, 7-9, Apr.
- 3 O'Leary, V., M. Sei, G. Rosenberg and J. Mead (2016), Describing multivariate relationships and spatial distributions of snail biodiversity in Jamaica. Presented at BEES Research Day, Drexel University, Philadelphia, PA, 10 Mar.
- 2 **O'Leary, V**., T. Daeschler (2016), Building an urban ecology curriculum along the Schuylkill River walking trail. Presented at Student Conference on Global Challenges, Drexel University, Philadelphia, PA, 25 Feb.
- 1 **O'Leary**, **V** (2016), 1 Footpath, 100 Stories: Climate change and the importance of "talking science". Presented twice at Undergraduate Research Nerd Night, Drexel University.

Poster Presentations

- 8 O'Leary, V., C. Amante (2017), GLOBATO: An enhanced global relief model at 30 arc-seconds resolution. Abstract OS31C-1412 presented at 2017 Fall Meeting, AGU, New Orleans, LA, 11-15 Dec.
- 7 (declined) O'Leary, V., V. Shirey, and S. Dilliplane (2017), Connecting natural history collections to their historical context and telling those stories to a global online audience. Annual Meeting, ESA, Portland, OR, 6-11

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Aug.

- 6 Shirey, V., **V. O'Leary**, and S. Dilliplane (2017), Big Data Opportunities in Ecological and Biodiversity Informatics: A Functional Trait Perspective. Presented at Digital Data in Biodiversity Research Conference, iDigBio, Ann Arbor, MI, 5-6 Jun.
- 5 **O'Leary, V**., M. Sei, G. Rosenberg and J. Mead (2016), Describing multivariate relationships and spatial distributions of snail biodiversity in Jamaica. Presented at Stanford Research Conference, Stanford University, Stanford, CA, 15-17 Apr.
- 4 Raphelson, M., V. O'Leary, A. Adams, K. Luckenbill and T. Daeschler (2016), Student projects using digital imaging techniques in Vertebrate Paleontology to capture new details of Late Devonian-age fossils. Presented at BEES Research Day, Drexel University, Philadelphia, PA, 10 Mar.
- 3 O'Leary, V., M. Sei, G. Rosenberg and J. Mead (2016), Describing multivariate relationships and spatial distributions of snail biodiversity in Jamaica. Presented at National Collegiate Research Conference, Harvard University, Cambridge, MA, 21-23 Jan.
- 2 O'Leary, V., D. Duran (2014), Niche Modeling for Management of Invasive Crayfish. Presented at STAR Scholars Summer Showcase, Drexel University, Philadelphia, PA, 27 Aug.
- 1 **O'Leary, V**., Z. Loughman (2014), A Multi-Year Analysis of Orconectid Crayfish Invasion Dynamics in West Virginia Utilizing Laboratory and Field Methodologies. Presented at COAS Research Days, Drexel University, Philadelphia, PA, 17-18 Feb.