

Lucas A. Estrada

laestrada00@gmail.com

EDUCATION	Williams College 2015-December 2019 <i>Bachelor of Arts in Geoscience and Computer Science</i> Varsity Cross Country and Track Dean's List Spring 2019
	Middlesex School 2011-2015 Science Department Prize in Environmental Science
RELEVANT EXPERIENCE	Scientific Programmer , GEOS-Chem Support Team, Harvard University August 2021-present Supervised by Dr. Daniel Jacob <ul style="list-style-type: none">Supporting postdocs and graduate students on research projects requiring technical expertiseFurther developing and improving the capability of running GEOS-Chem and GCHP on the cloudDeveloping structural updates to the model's analysis tools (GCPy) and chemical solver (KPP)Providing user support to a vibrant community of users via github issues Software Engineer , Nevo Technologies 2020-June 2021 <ul style="list-style-type: none">Worked as part of a agile development team on a wide variety of projectsDeveloped and deployed applications to the cloud using a variety of AWS servicesQuickly adapted to new technologies, stacks, and development environmentsWorked with high volumes of data implementing Extract, Transfer, and Load processes Research Intern , Incorporated Research Institutions for Seismology Summer 2019 Supervised by Dr. Kasey Aderhold <ul style="list-style-type: none">Conducted novel seismic research studying Alaskan sea ice modulations of seismic noisePerformed data analysis and statistical modeling of seismic data in Matlab and PythonWrote scripts that pull data in real time directly from the IRIS Data Center API Research Assistant , Williams College Summer 2018 Supervised by Dr. Phoebe Cohen <ul style="list-style-type: none">Studied the microfossil and mercury trends of shales to investigate the End-Devonian mass extinctionPrepared samples for analysis and recorded detailed notes of results and proceduresWrote Python scripts to analyze datasets from the Macrostrat and Paleobio Database API Crew , Appalachian Mountain Club Cold River Camp - Chatham, NH Summer 2017 <ul style="list-style-type: none">Lived and worked with colleagues in a team-oriented, fast-paced environmentMaintained all buildings and ground, served on waitstaff, and ensured guest satisfaction
TECHNICAL SKILLS	Programming Python, Java, TypeScript, Matlab, C/C#/C++, SQL/PSQL, Docker, AWS, Terraform, Linux, shell scripting, Object Oriented Programming, Unit Testing, Version Control (Git), Continuous Integration, Angular, .NET Core, React Native, Xamarin Forms
SERVICE AND LEADERSHIP	Purple Bike Coalition President, Treasurer, Mechanic 2016-2019 <ul style="list-style-type: none">Manage shop budget, train and hire mechanics, organize work schedules Teaching Assistant - Geoscience 101 , Williams College 2019 <ul style="list-style-type: none">Assist 30+ students in labs and answer questions related to lectures and course materialsReview and grade student labs Varsity Track Captain , Williams College 2018-2019 <ul style="list-style-type: none">Organize team events, promote positive culture, communicate with coaches

CONFERENCES **American Geophysical Union Conference 2019**

- *Characterizing Sea Ice Modulations of Seismic Noise using the Alaskan Transportable Array*
<https://agu.confex.com/agu/fm19/meetingapp.cgi/Paper/507588>

Geological Society of America Conference 2018

- *Mercury and Microfossil Trends During End-Devonian Extinction Events*
<https://www.researchgate.net/scientific-contributions/Lucas-Estrada-2150491930>

PROJECTS

Integrated Methane Inversions

Ongoing

Currently working to improve the performance and broaden the accessibility of our Integrated Methane Inversion Workflow. This involves structural updates and updating the workflow for usage on the cloud, where it can be easily run by both the atmospheric chemistry community and industry stakeholders.

Acushnet Artworks

2021

Worked as part of a small development team to implement a logo management web application for the Acushnet Holdings Corporation. This project used Angular for the front end application and .NET Core for the backend. This project was deployed and run with an entirely serverless footprint, using AWS ECS to run a dockerized version of the application. I was heavily involved in setting up the necessary devOps infrastructure and coding both the client-side and server-side applications

IHM Insights

2020

Developed a high-volume, cloud-based medical data ingest and egress system for the Institute for Health Metrics. I worked as one of the sole contributors, handling the ingestion and transformation of Electronic Health Record data from over 50 hospitals into our Postgres database on the cloud. This project involved leveraging a wide variety of AWS services including AWS Glue (Pyspark), Lambda, Step Functions, RDS Aurora, ECS, etc.

J&J J Labs Navigator

2020

Developed a web application for Johnson & Johnson's incubator program (JLABS). Worked on the client-side application to replace their legacy Drupal application with a new Angular version that provides richer interactions and visualizations.