

Philip Englund Mathieu

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Seeking internship/co-op opportunities for summer/fall 2023

PROFESSIONAL SUMMARY

Data science graduate student at Northeastern University's Roux Institute. Skills include data analysis, machine learning, and data visualization with an emphasis on Python and JavaScript tools and geospatial datasets. Work experience in education and environmental advocacy, including leadership experience coordinating small teams and serving on boards.

EDUCATION

The Roux Institute at Northeastern University, Portland, ME December 2023 (Expected)
Master of Science in Data Science **GPA: 4.0/4.0**

- Relevant Courses: Pattern Recognition and Computer Vision, Unsupervised Machine Learning, Supervised Machine Learning, Data Visualization with Web Technologies, Data Management and Processing

Brown University, Providence, RI May 2017
Bachelor of Arts in Physics **GPA: 3.58/4.00**

- Academic Recognitions: Elected to Sigma Xi (scientific research honor society)

SKILLS

- **Programming Languages:** Python, JavaScript, HTML/CSS, C++, Matlab,
- **Software:** ArcGIS Pro, Adobe Creative Cloud, Solidworks, Autodesk Fusion 360, Microsoft Office/Google Docs including VBA and GoogleScripts, Asana, Trello, Airtable, Wordpress
- **Domain Knowledge:** Conservation, GIS/geospatial data, audio and video production

ACADEMIC PROJECTS

Interactive Visualization for Crowd-Sourced Air Quality Reports November 2022 – Present
<https://cs7290.github.io/stinky/>

- Developed an interactive map of air quality reports from the Portland area showing seasonal and spatial patterns
- Built a user-facing website with HTML, Bootstrap CSS, and embedded Observable notebook cells
- Presented work at Khoury College 40th Anniversary Student Showcase

Broadband Data Analysis for Maine Connectivity Authority April — June 2022
<https://ds5010.github.io/broadband/>

- Analyzed data showing street-level internet connectivity speeds for the State of Maine
- Presented prototype website Maine Connectivity Authority during a Roux Institute all-staff meeting

PROFESSIONAL EXPERIENCE

Sierra Club Maine, Portland, ME January 2022 – Present
30x30 Intern

- Developing data visualizations, GIS maps, and written technical briefs for advocacy related to land conservation
- Providing technical assistance and support to 30x30 coalition group consisting of several state and regional environmental organizations

The Roux Institute at Northeastern University, Portland, ME May 2022 – Present
Research Assistant, Teaching Assistant

- Initiating and, when needed, completing class projects in coordination with key stakeholders
- Designing resources and providing 1:1 educational support to 30+ graduate students in data science courses

Cape Elizabeth Land Trust, Cape Elizabeth, ME August 2019 – June 2022
Program Coordinator

- Assisted with geospatial data analysis, cartography/mapmaking, municipal permitting, and management planning
- Directed education programs for groups of 20+ students and adults on a wide range of topics
- Produced written and video content for the newsletter, [website](#), Cape Courier (local newspaper), and social media

The Ecology School, Saco, ME

Spring 2018, Spring 2019

Ecology Educator, Podcast Host

- Taught ecology to groups of 8-13 middle school students in residential outdoor education setting
- Created and adapted activities to incorporate skills such as data literacy into an environmental science curriculum
- Hosted and produced a [podcast](#) interviewing former employees about their career trajectories

Uproot Inc, Providence, RI

June 2018 – March 2019

Founder and CFO

- Cofounded a plant-based milk company serving food service establishments at colleges
- Guided company from conception through two incubator programs and \$60,000 initial fundraising
- Completed a sustainability analysis synthesizing published work on the environmental impact of dairy alternatives

Brown Formula Racing, Providence, RI

2013 – 2017

Captain, Aerodynamics Design Lead

- Defined concrete team-wide engineering goals and implemented data-driven design and testing program that led to the team's best finish since 2012
- Utilized a range of engineering software including SolidWorks CAD, Autodesk CFD, and G-code

UTRA/NASA Rhode Island Space Grant Consortium, Providence, RI

2016 – 2017

Undergraduate Researcher, Pober Radio Astronomy Lab

- Analyzed data from the Hydrogen Epoch of Reionization Array (HERA) radio telescope
- Published a [technical memo](#) documenting one of the first signals observed with this telescope
- Gave a poster presentation at the 229th American Astronomical Society meeting and presented a talk at the 2017 NASA/RI Space Grant Consortium Symposium

VOLUNTEER WORK

Rent Board, Portland, ME

October 2022 – Present

District 5 Representative

- Evaluating petitions regarding local rent and housing ordinances to balance needs of tenants and landlords
- Cleaning, organizing, and analyzing data for use in annual report to Portland City Council