ELEANOR WIESLER

Cambridge, MA — ewiesler@college.harvard.edu — 475-434-1386— linkedin.com/in/eleanorwiesler

EDUCATION

Harvard University, Cambridge, MA — Sep 2021 - May 2025

A.B. Candidate in Mathematics, secondary in Computer Science (Highest Honors track)

- GPA: 3.81/4.00, SAT: 1510/1600
- **Selected Coursework:** Probability; Statistical Inference; Sets, Groups, and Real Analysis; Linear Algebra and Differential Equations; Multivariable Calculus; Statistical and Mechanical Physics; Statistical Electromagnetism; Computational Problem Solving in Python; Semi-Riemannian Geometry; Pure Mathematics Research Seminar (Algebra, Analysis), Evolutionary Dynamics (Graduate Mathematics)

*Graduate-level coursework

EXPERIENCE

Harvard School of Engineering and Applied Sciences — Cambridge, MA
Undergraduate Researcher — Oct 2023 - Present

- Conducting statistical causal inference research under Prof. Francesca Dominici on the impacts of air pollution using large-scale heterogeneous data sets and Bayesian mathematical modeling.
- Collaborating with theoretical and applied statisticians on developing biostatistical models for study of climate change and health impacts including geospatial and population-level analyses; Python, R, XML, QGIS
- Delivered a machine learning talk to lab on previous findings in ML model development.

Massachusetts Institute of Technology — Cambridge, MA
Research Fellow — Oct 2023 - Present

- Conducting statistical causal inference research under Prof. Francesca Dominici on the impacts of air pollution using large-scale heterogeneous data sets and Bayesian mathematical modeling.
- Collaborating with theoretical and applied statisticians on developing biostatistical models for study of climate change and health impacts including geospatial and population-level analyses; Python, R, XML, QGIS
- Delivered a machine learning talk to lab on previous findings in ML model development.

University of Oxford Big Data Institute — Oxford, United Kingdom
Visiting Research Intern — Jun 2023 – Sep 2023

- Developed a novel unsupervised ML model for detection of outdoor time using time-series light data from wearable devices in the UK Biobank. Funded by competitive Harvard Global Health Institute award.
- Used Python and R to implement analyses, and presented findings to over 30+ researchers and professors. Collaboration with deep learning and informatics teams on development of model.
- Currently first-authoring a manuscript for publication and co-authoring two additional papers following position.

Universidad Mayor — Santiago, Chile
Research Intern — Jun 2022 - Aug 2022

- Researched economic and statistical modeling of Chilean communities alongside Prof. Montalva at Universidad Mayor, utilizing R modeling, and genetic mapping, and theoretical frameworks for property and wealth distributions.
- Conducted research and all scientific and professional work in fully Spanish-speaking environment.
- Awarded prestigious grant by David Rockefeller Center for Latin American Studies to fund research internship.

Detect.com — Santiago, Chile
Research Intern — Jun 2022 - Aug 2022

- Researched economic and statistical modeling of Chilean communities alongside Prof. Montalva at Universidad Mayor, utilizing R modeling, and genetic mapping, and theoretical frameworks for property and wealth distributions.
- Conducted research and all scientific and professional work in fully Spanish-speaking environment.
- Awarded prestigious grant by David Rockefeller Center for Latin American Studies to fund research internship.

Yale School of Medicine — New Haven, CT
Research Intern — Jun 2022 - Aug 2022

- Researched economic and statistical modeling of Chilean communities alongside Prof. Montalva at Universidad Mayor, utilizing R modeling, and genetic mapping, and theoretical frameworks for property and wealth distributions.
- Conducted research and all scientific and professional work in fully Spanish-speaking environment.
- Awarded prestigious grant by David Rockefeller Center for Latin American Studies to fund research internship.

TEACHING AND LEADERSHIP

Harvard Department of Mathematics Cambridge, MA
Course Assistant Jan 2024 - Present

- Advanced Linear Algebra (Math 121) Course Assistant for Spring 2024 Semester. Taught students fundamentals of proof-based linear algebra in 1:1 and group settings, graded coursework, prepared lecture notes.

Girls Who Code Cambridge, MA
Instructor Apr 2018 - Present

- 5+ years of instruction teaching K-12 students foundations of programming, computer science.
- Served over 50+ students by giving lectures, designing computer science lesson plans and projects, and mentoring.

Boston Refugee Youth Enrichment Program Boston, MA
Co-Director Sep 2022 - Present

- Leader and instructor Boston educational after-school program serving 40+ refugee students with instruction in mathematics, science, and language-based classes for nonnative English-speaking students.

TALKS

July 2023, University of Oxford Big Data Institute

September 2023, Harvard Global Health Institute

May 2024 - Geometric Methods in Machine Learning

PUBLICATIONS

Kim, D. J., Venkataraman, A., Jain, P. C., Wiesler, E. P., DeBlasio, M... Iwasaki, A. (2020). Vitamin B12 and folic acid alleviate symptoms of nutritional deficiency by antagonizing aryl hydrocarbon receptor. Proceedings of the National Academy of Sciences - PNAS https://doi.org/10.1073/pnas.2006949117

SKILLS

- **Programming:** Excel, Python, R, C++, HTML/ CSS, SQL, JavaScript, Latex. (ML: Scikit-Learn, PyTorch, TensorFlow)
- **Languages:** Spanish (fluent), French, Portuguese, Mandarin (intermediate to elementary)
- **Research:** Published researcher, advanced quantitative and analytical skills, research presentations given globally.
- **Hobbies:** Jazz saxophone and music theory, rock climbing, creative fiction and nonfiction writing