

## EDUCATION

<b>Colorado State University</b> , Fort Collins, CO <i>Doctor of Philosophy, Statistics</i> Thesis: <i>Bayesian Tree Based Methods for Longitudinally Assessed Environmental Mixtures</i> Advisor: Dr. Ander Wilson	2019 – 2024
<b>Colorado State University</b> , Fort Collins, CO <i>Master of Science, Statistics</i>	2019 – 2023
<b>St. Lawrence University</b> , Canton, NY <i>Bachelor of Science, Mathematics &amp; Statistics, Magna Cum Laude</i>	2015 – 2019

## EXPERIENCE

<b>Research Specialist</b> <i>Naval Future Innovation Research Group</i> , Republic of Korea Naval Headquarters Mandatory National Service — discharge scheduled late July 2026	Oct 2024 – Present
<b>Graduate Research Assistant</b> <i>Department of Statistics</i> , Colorado State University	Jun 2021 – Aug 2024
<b>Graduate Teaching Assistant</b> <i>Department of Statistics</i> , Colorado State University	Aug 2019 – May 2021
<b>Student Mentor</b> <i>Peterson Quantitative Reasoning Center</i> , St. Lawrence University	Aug 2017 – Jun 2019
<b>IT Department Student Employee</b> <i>Information Technology</i> , St. Lawrence University	Aug 2016 – Jun 2019

## PUBLICATIONS

### Published:

- Leung, M., **Im, S.**, Rowland, S. T., Papatheodorou, S., Coull, B. A., Kioumourtzoglou, M.-A., Weisskopf, M. G., & Wilson, A. (2026). Prenatal exposure to wildfire PM2.5 and pregnancy loss in Colorado, USA, 2007–2018. *International Journal of Epidemiology*, 55(1), dyaf212. <https://doi.org/10.1093/ije/dyaf212>
- Im, S.**, Wilson, A., & Mork, D. (2025). Structured Bayesian Regression Tree Models for Estimating Distributed Lag Effects: The R Package dlmtree. *R Journal*. 17(1), 136–159. <https://doi.org/10.32614/RJ-2025-007>
- Mork, D., **Im, S.**, & Wilson, A. (2024). dlmtree: Bayesian Treed Distributed Lag Models. *Comprehensive R Archive Network (CRAN) package*, version 1.1.0.
- Weller, Z. D., **Im, S.**, Palacios, V., Stuchiner, E., & von Fischer, J. C. (2022). Environmental injustices of leaks from urban natural gas distribution systems: Patterns among and within 13 U.S. metro areas. *Environmental Science & Technology*, 56(12), 8599–8609. <https://doi.org/10.1021/acs.est.2c00097>
- 🌟 Selected for American Chemical Society (ACS) Editors' Choice

### To be published / Under review:

- Im, S.**, Mork, D., Leung, M., Weisskopf, M., Kioumourtzoglou, M.-A., & Wilson, A. (2026). Treed Distributed Lag Mixture Model With Zero-Inflated Count Data to Investigate the Association Between Air Pollution and Pregnancy Loss. *Statistics in Medicine*, under review.
- Im, S.**, Mork, D., & Wilson, A. (2026). Heterogeneous Distributed Lag Mixture Model for Precision Environmental Health with Longitudinally Assessed Mixture Exposures. *Journal of the Royal Statistical Society Series C: Applied Statistics*, under review.

## HONORS & AWARDS

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Excellence Award – ROK Army Big Data Analytics Competition	Nov 2025
Excellence Award – ROK Navy & Marine Corps Artificial Intelligence Innovation Challenge	Jun 2025
President, Pi Mu Epsilon (Mathematics Honor Society), St. Lawrence University	Fall 2019
Statistics Dr. O. Kenneth Bates Award, St. Lawrence University	Jun 2019
Dean's list, St. Lawrence University	Fall 2016 – Spring 2019

## PRESENTATIONS

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The Graduate Student Showcase, Colorado State University, <i>poster</i>	2023
EnviBayes Workshop on Complex Environmental Data, International Society for Bayesian Analysis (ISBA), <i>poster</i>	2023
Joint Statistical Meetings (JSM), American Statistical Association (ASA), Toronto, ON, Canada, <i>oral</i>	2023
The Graduate Student Showcase, Colorado State University, <i>poster</i>	2022
Colorado/Wyoming Chapter, American Association (ASA), <i>oral (virtual)</i>	2021
Joint Statistical Meetings (JSM). American Statistical Association (ASA), Seattle, USA, <i>oral (virtual)</i>	2021
Front Range Student Ecology Symposium (FRSES), Colorado State University, <i>oral (virtual)</i>	2021

## TEACHING

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### Courses

*Department of Statistics, Colorado State University*

STAT 301: Introduction to Statistical Methods	Spring 2020 – Spring 2021
STAT 201: General Statistics	Fall 2019

### Workshops

*Department of Statistics, Colorado State University*

Coding & Cookies – Python: Working with data	Fall 2023, Spring 2024
Coding & Cookies – Tidy Data in R: Tidyverse	Fall 2021, Fall 2022, Spring 2023
Coding & Cookies – R Basics	Spring 2022

### Tutored

*Department of Statistics, Colorado State University*

STAR 511: Design and Data Analysis for Researchers I – R Software	Spring 2024
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*Peterson Quantitative Reasoning Center, St. Lawrence University*

STAT-325: Probability	Fall 2017 – Spring 2019
STAT-313: Advanced Statistical Models	
STAT-213: Applied Regression Analysis	
STAT-113: Applied Statistics	
CS-140: Intro to Computer Programming	
MATH-217: Linear Algebra	
MATH-136: Calculus II	
MATH-135: Calculus I	

## SKILLS

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**R:** Tidyverse, Rcpp, RStan/brms, R package development, Bayesian modeling

**Python:** NumPy, SciPy, Pandas, Matplotlib

**Version Control:** Git, GitHub

**SQL:** Proficient

**High performance computing (HPC):** Proficient

**Language:** English – Bilingual Proficiency; Korean – Native