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**JEFFREY SMITH**  
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## SUMMARY

A current data science and statistics student. Fields of interest include the natural sciences, probability, and biostatistics.

## SKILLS

- Fluent in R, familiar with Python and PostgreSQL.
- R packages used: tidyverse, Rssa, ncd4, KMsurv, survey, survival, tree, caret, class.
- Python packages used: pandas, numpy, matplotlib, seaborn.
- Familiar with relational, document, and graph databases.
- Comfortable with Frequentist methods, familiar with Bayesian methodology.
- Comfortable with regression methods such as least squares, as well as classification algorithms such as KNN.
- Familiar with PCA and clustering algorithms such as K-means and hierarchical clustering

## EXPERIENCE

### Independent Research – *Mathematics Department*, Western Washington University

February 2023 - PRESENT

- Performed statistical analysis on long run data of ice coverage duration on a subset of lakes in the Northern Hemisphere.
- First application of time series technique (singular spectrum analysis) in the field of ice phenology.
- Found statistically significant difference in ice cover duration in Finland over 100 years of data.
- Project selected for the 2023 NASA Space Grant Summer Research.

### Peer Tutor – *Tutoring Center*, Western Washington University

September 2022 - June 2024

- Tutored undergraduate students in statistics, math, and chemistry.
- Led study groups to help Honors General Chemistry students prepare for their exams.

### Research Assistant – *Chemistry Department*, Western Washington University

October 2021 - August 2022

- Researched ligand chemistry with purpose of reducing nitroxides to less harmful nitrogen species.

## PROJECTS

### • Effect of Shipping Lanes on Ocean Health

*In progress:* Expected completion August 2025 at Willamette University

*Tools & Technologies:* Python, PostgreSQL, Postgres Database, R

### • Effects of xAI's Supercomputer "Colossus" on Memphis, Tennessee's Air Quality

*In progress:* Expected completion August 2025 at Willamette University

*Tools & Technologies:* Python, numpy, pandas

### • Applying SSA to Lake Ice Phenology

*In progress:* Expected completion TBD at Western Washington University

*Tools & Technologies:* R, Rssa, tidyverse, ncd4

## EDUCATION

### Oregon State University - Corvallis, OR

Start Date: September 2025

*College of Science - Statistics, Masters*

### Willamette University - Salem, OR

August 2024 - CURRENT

*School of Computing and Information Sciences - Data Science, Masters*

### Western Washington University - Bellingham, WA

September 2020 - June 2024

*College of Science and Engineering - Bachelors of Science, Statistics*

Minor in Chemistry