

# KAIRSTEN FAY

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## EXPERIENCE

FEB 2017 – PRESENT

**DATA ANALYST**, INSTITUTE FOR HEALTH METRICS AND EVALUATION, SEATTLE, WA

- Built a machine learning library (Python, Scikit-learn) to improve epidemiological predictions in data-sparse areas for multiple risk factors. Increased model performance 50%-100% on average from old statistical methods and gained approval from the IHME scientific council
- Improved the ETL pipeline code (Python, Pandas). Updated it to process data more quickly and altered the extraction process to move away from cleaning scripts, reducing the extraction time by 20% and saving 600 hours of Data Analyst time
- Designed dynamic dashboards (Tableau, Superset) for data validation, replacing static graphs and saving 300 hours of Data Analyst time. Collaborated on the specifications of the dashboards with the faculty leader to support the stories he needed to tell
- Used Python, R, and SQL to perform statistical data analysis and data visualization for internal and external communications including publications and press releases

JAN 2015 – SEP 2016

**DATA TECHNICIAN**, NC STATE UNIVERSITY, RALEIGH, NC

- Created an unprecedented, geospatial data set using literature review and museum collections to research the shifting winter coat color distribution of animals worldwide due to climate change.
- Publicized the dataset by building a visualization dashboard on Tableau public.
- Increased data coverage by 15% by recruiting collaborators' help at inaccessible museums.

## EDUCATION

MAR 2018 – PRESENT

**PROFESSIONAL DEVELOPMENT**, UNIVERSITY OF WASHINGTON

Computer Programming I (Java), Computer Programming II (Java)

MAY 2015

**B.S. BIOLOGY**, NORTH CAROLINA STATE UNIVERSITY

4.0 GPA. Caldwell Fellow. Coursework in statistics and genetics. Certificate in ArcGIS Desktop.

**DATA SCIENCE**, COURSERA

Earned 18 certificates through Johns Hopkins, University of Washington, and UC San Diego

## PUBLICATIONS

- Co-author: Winter Coat Color Polymorphisms Identify Global Hotspots for Evolutionary Rescue from Climate Change. **Science**. 2018.
- Co-author: Global Burden of Disease risk factors capstone. **The Lancet**. 2017.
- Co-author: Genetic and genomic response to selection for food consumption in *Drosophila melanogaster*. **Behav Genet**. 2016.