

Bumjun Park

Ph.D. Student

 Seattle, WA

 [bpark67.github.io](https://github.com/bpark67)

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Profile

Doctoral student in Biostatistics. Undergraduate statistics major with certificates in mathematics and economic analytics. Interests in spatial, environmental statistics, functional data analysis, and network analysis. Native speaker of Korean and English.



Education

University of Washington <i>Ph. D. in Biostatistics</i>	Sep 2023 – present Seattle, WA
University of Wisconsin-Madison <i>BS in Statistics, Cert. in Mathematics and Economic Analytics</i> (GPA: 4.0/4.0)	Sep 2018 – May 2023 Madison, WI
Hankuk Academy of Foreign Studies <i>High School Diploma</i> (GPA: 4.0/4.0)	Mar 2015 – Feb 2018 Yongin, South Korea

Publications

Park, B., Kang, H., Zahasky, C. (2024) **Statistical Mapping of PFOA and PFOS in Groundwater Throughout the Contiguous United States.** *Environmental Science and Technology*

Professional Experience

Research Assistant <i>Professor Jing Ma, Fred Hutchinson Cancer Center</i> 	Sep 2024 – present Seattle, WA
<ul style="list-style-type: none">Conducted data-driven graphical and network analyses in microbiome research, developing methods to estimate multiple topologies of microbiota from a single dataset.Reviewed literature and contributed to code development, supporting a theoretical statistics project focused on microbiota topology estimation.	
Research Assistant <i>Professor Eardi Lila, Department of Biostatistics, University of Washington</i> 	Sep 2023 – Sep 2024 Seattle, WA
<ul style="list-style-type: none">Worked on a team led by Professor Mahmud Mossa-Basha, Department of Radiology, UW-Medicine and studied novel statistical methods such as multivariate functional data analysis methods for predicting ischemic stroke.Investigated and developed quantitative models for reclassifying Embolic Strokes of Undetermined Source (ESUS) using cerebral vessel wall MRI data.	

Data Analyst

Professor Jonathan Patz Lab, Nelson Institute for Environmental Studies, UW-Madison [🔗](#)

Sep 2022 – May 2023
Madison, WI

- Assisted researchers and graduate students at the Patz lab in preprocessing and processing data from projects in areas ranging from environmental policy, air quality, or epidemiology.
- Fitted statistical models such as spatial random forests to investigate the relationship between incidences of malaria prevalence in Kenya and vegetation coverage, insecticide-treated net distribution, precipitation, and livestock population.

Research Assistant

Professor Chris Zahasky, Department of Geoscience, UW-Madison [🔗](#)

May 2022 – May 2023
Madison, WI

- Implemented web-scraping algorithms to collect data of per- and polyfluoroalkyl substances (PFAS) concentration levels provided by the U.S. Air Force, Wisconsin Department of Natural Resources, and other state-level environmental agencies.
- Provided data visualizations of the geo-statistical data and built an Inhomogeneous Poisson Process model to predict PFAS concentration levels after adjusting for opportunistically sampled data.

Research Assistant

Professor Stephen Gammie, Department of Integrative Biology, UW-Madison

Feb 2022 – May 2023
Madison, WI

- Collaborated with three other assistants to clean, preprocess, and analyze, RNA-sequencing gene expression data of mice with Alzheimer's disease, collected from multiple platforms to identify differentially expressed genes.
- Collected gene expressions data of Parkinson's disease and Alzheimer's disease patients, wrote and implemented programming methods to process the data, and fitted a machine learning classification model by identifying top-scoring differential gene pairs.

Aviation Control, Squadron Leader

2nd Squadron, 31st Air Defense and Control, Republic of Korea Air Force

Sep 2019 – Jul 2021
Osan, South Korea

- Served as the squadron leader, leading and representing 20 servicemen of the 2nd Control Squadron.
- Interpreted RADAR and GPS data and communicated with flight agencies to identify aircraft. Regularly presented and explained aviation data to other military officials and civilian pilots.



Certificates

Certified Associate in Python Programming



Python Institute