

# MINJEE KIM

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## EDUCATION

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**Texas A&M University**

Ph.D. in Statistics

College Station, TX

[Expected Graduation: December 2026]

**Texas A&M University**

B.S.–M.S. Fast Track Program in Statistics

College Station, TX

Graduated: May 2022

## PROFESSIONAL EXPERIENCE

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**Lubrizol Corporation**

*PhD Statistics and Data Science Internship*

Wickliffe, OH

- Developed and deployed credible intervals for predictive models, improving reliability of forecast.
- Designed repeatability and reproducibility experiments, strengthening product validation.
- Built predictive models linking chemical composition to transmission fluid performance to guide the data-driven product development decisions.

**Texas A&M University [Institute of Biosciences and Technology]**

*Biostatistics Research Assistant at Dr. Kurt Zhang Lab*

Houston, TX

*August 2021 - May 2023*

- Used High-dimensional regression and clustering on DNA methylation data, identifying biomarkers linked to disease pathways.
- Analyzed NHANES data to reveal dietary risk factors for hypertension in pregnancy.

## RESEARCH EXPERIENCE

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**PhD Thesis**

[Advisor: Dr. Valen Johnson]

- Bayesian latent class models for improving accuracy of disease prevalence estimates without a gold standard.
- Hierarchical Bayesian regression to estimate global disease prevalence for disease surveillance.
- Developing agent-based model validation techniques through emulation for infectious disease modeling.

**Master's Thesis**

[Advisors: Dr. Shahina Rahman & Dr. Valen Johnson]

- Trained convolutional neural networks with bottleneck architectures, creating a novel high-dimensional clustering framework that improved feature separation in complex datasets.

**Undergraduate Summer Research**

*Principal Investigator: Dr. Peter Brown*

*Summer 2020*

- Modeled UV light curves of Type Ia supernovae, improving characterization of emission patterns using time-series statistical analysis.

**Undergraduate Summer Research**

*Principal Investigators: Dr. Shahina Rahman & Dr. Valen Johnson.*

*Summer 2019*

- Developed high-dimensional clustering simulations for the RJClust R package.
- Enabled scalability to large biological datasets.

## PUBLICATIONS

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[submitted - In Revision] Gaelle Kamdjo Guela, Christopher G. Laine, Pierre Gontao, Charles Oliver Gomsu Dada, Hortense Abiba, Daniel Garcia-Gonzalez, Sonia Vection, John D. Gillece, **Minjee Kim**, Valen E. Johnson, Jeffery T. Foster, Abel Wade, Angela M. Arenas-Gamboa. Prevalence study in Cameroon identifies *Brucella abortus* as the endemic species in livestock. *Nature Communications*.

Wang, J., Zhang, W., Liu, X., **Kim, M.**, Ke. Z., Tsai, R.. Epigenome-wide analysis of aging effects on liver regeneration. *BMC Biol* 21, 30 (2023). <https://doi.org/10.1186/s12915-023-01533-1>

Peng H, Xu H, Wu J, Li J, Wang X, Liu Z, **Kim M**, Jeon MS, Zhang KK, Xie L. Maternal One-Carbon Supplement Reduced the Risk of Non-Alcoholic Fatty Liver Disease in Male Offspring. *Nutrients*. 2022; 14(12):2545. <https://doi.org/10.3390/nu14122545>

## LEADERSHIP EXPERIENCE

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### Statistics Graduate Student Association

*Secretary, Workshop Organizer*

College Station, TX

*September 2024 - Present*

- Designed and hosted workshops to provide internship and full-time employment assistant.
- Created the "Meet the Professor" and "Meet the Alumn" series to strengthen faculty and alumni engagement.

### Statistics Undergraduate Student Association

*President*

College Station, TX

*September 2019 - May 2021*

- Co-Founded the organization to promote student engagement among the undergraduates, in collaboration with the department of statistics.

## TEACHING EXPERIENCE

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### Teaching Assistant

*Texas A&M University (Department of Statistics)*

*Fall 2022*

- Supported coursework in ANOVA, nonlinear regression, design of experiments, and
- STAT 653: STATISTICS IN RESEARCH III; STAT 312: STATISTICS FOR BIOLOGY

### Peer Mentor

*Texas A&M University (College of Science)*

*September 2019 - May 2020*

- Mentored freshmen in the College of Science to increase the retention rate within the college.

## CONFERENCE CONTRIBUTIONS

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- **Joint Statistical Meetings**, Nashville, TN (2025). **Oral presentation:** "*Bayesian Latent Class Analysis*." Submitted to the American Statistical Association Biometrics Section.
- **Fall Technical Conference**, Houston, TX (2025). "*Predictive Model Monitoring and Assessment in the Lubrizol Q.life Formulation Optimization System*" Anja Zgodic, Philip Rocco Scinto, **Minjee Kim**, and Kevin Manouchehri.

## AWARDS

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### Dr. Ersen Arseven 74' Scholarship

2017 - 2022

- Awarded full tuition for undergraduate and master's studies based on academic merit.

### Zorich's Applied Statistics Workshop

2025

- Awarded **First Place** in the TidBit Session for a 4-minute presentation on applied statistical research.