KwangHyun Park

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Education

University of Georgia — *M.S. in Statistics* (GPA: 4.00) Aug 2025 – Dec 2026
University of Georgia — *B.S. in Mathematics* (Major GPA: 4.00) Aug 2024 – Aug 2025
Chung-Ang University — *B.S. coursework in Mathematics* (Seoul, South Korea) Mar 2020 – Jul 2021

Research Interests

Mathematical Statistics, Empirical Process Theory, Semiparametric Inference, Extreme Value Theory, Optimal Transport, Geometric Topics in Statistics

Research Experience

Wasserstein Asymptotics for Semicontinuous Models [Draft] May 2026 – Present

- Derived asymptotic rates and phase transitions of W_p distances between empirical and true distributions
- Derived sharp local minimax result for distribution estimation under W_2^2 loss on singular phase

Multivariate Extreme Value Theory Aug 2026 – Present

- Investigating extrapolation of threshold-indexed distributions and support recovery for angular measures
- Exploring autoregressive optimal transport models and dynamic approaches under probabilistic constraints

Honors & Awards

David Lifsey Fellowship — UGA Statistics; support for an outstanding M.S. student ($4,000) Sep 2026
ICERM Travel Support — 13th Blackwell–Tapia Conference, Rice University ($1,457) Dec 2026
Financial Support Award — Statistics Beyond Euclid, UC Davis Oct 2026
Hollingsworth Award — Department of Mathematics, University of Georgia Apr 2025
1st Place, 18th Annual Math Competition — Georgia State University Apr 2024

Presentations

Enjoying Math [Video] — Mathematics community

- **From Basic to Graduate School Mathematics** Jul 2025 – Present
  — Gave 33 presentations including Donsker's theorem, weak topology and smooth manifold theory
- **Topology and Its Applications** May 2025 – Present
  — Gave 8 presentations on algebraic topology including de Rham cohomology and spectral sequence

Projects

Clinical Group Prediction from Gut Compositional Data [Report] Jun 2026 – Jul 2026
STAT 8000: Introductory Statistical Collaboration, University of Georgia *Athens, GA*

- Applied kernel SVM and PCA under Aitchison geometry for compositional predictors
- Fitted multinomial and ordinal logistic regression models for clinical group and severity

Stochastic Pension Reserve Modeling [Report] Jan 2025 – Apr 2025
MATH 4802: Industrial Mathematics, University of Georgia *Athens, GA*

- Developed pension reserve and asset–liability models under Monte Carlo economic scenarios
- Found ideal stock proportion of 36% with value at risk of 124% on security level 0.95

Professional Examinations

Society of Actuaries

Exam ASTAM — Advanced Short-Term Actuarial Mathematics	Jul 2025
Exam SRM — Statistics for Risk Modeling	Jan 2025
Exam FAM — Fundamentals of Actuarial Mathematics	Nov 2024
Exam FM — Financial Mathematics	Aug 2024
Exam P — Probability	Jul 2024

Work Experience

Alternative Media Assistant Mar 2024 – Jul 2024
Access and Accommodations Center, Georgia State University *Atlanta, GA*

- Web module integration for braille training, textbook publication and braille transcription of sheet music

Sergeant, Air Defense Operations Oct 2021 – Apr 2023
Capital Defense Command, Republic of Korea Army *Seoul, South Korea*

- Served as squad leader and M163 air defense vulcan system gunner/operator

Additional Information

Skills: Python, R, LaTeX, Excel, Word
Immigration Status: U.S. Permanent Resident