

HyungGyu Min

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Fields of Interest

Single-cell genomics Functional genomics Sequence data analysis Dimension reduction Quantum computing

Education

Oct 2023 - Present	UNC at Chapel Hill , Chapel Hill, North Carolina PhD, Biostatistics
Sep 2020 - Oct 2023	Yonsei University , Seoul, Republic of Korea Master of Arts, Statistics GPA: 4.27/4.30 (4.00/4.00)
Mar 2014 - Aug 2020	Yonsei University , Seoul, Republic of Korea Bachelor of Arts, Applied Statistics Stat & Math GPA: 4.11/4.30 (3.91/4.00) Overall GPA: 3.70/4.30 (3.56/4.00)

Publications

Functional Genomics Published	Massively parallel reporter assays investigate shared genetic variants across eight psychiatric disorders (2025) <i>Cell</i> , contributing author
Single-Cell Genomics Under review	Perturbation of genes linked to common schizophrenia risk variants identifies cilia-associated gene programs <i>Cell</i> , second author
Clinical Statistics Published	Effect of orally administered heat-treated <i>Lactobacillus plantarum</i> LM1004 on the innate immune system <i>Journal of Functional Foods</i> , contributing author
Microbiome Analysis Published	Altered gut microbiota in individuals with episodic and chronic migraine <i>Scientific Reports</i> , contributing author

Teaching Experience

Yonsei University	Teaching Assistant, Quantum Finance Computing (Sep 2022 – Dec 2022) Teaching Assistant, Multivariate Analysis (Sep 2022 – Dec 2022) Teaching Assistant, Theory of Dimension Reduction (Mar 2022 – Jun 2022) Teaching Assistant, Qiskit for Data Science (Mar 2022 – Jun 2022) Teaching Assistant, Big Data and Quantum Computing (Sep 2021 – Dec 2021) Teaching Assistant, Multivariate Analysis (Sep 2021 – Dec 2021) Teaching Assistant, Statistical Data Analysis (Mar 2021 – Jun 2021) Instructor: Prof. Hakbae Lee
Yonsei University	Teaching Assistant, Introduction to Statistics (Sep 2020 – Dec 2020) Instructor: Prof. Hogyu Lee
Korea Quantum Computing	Lecturer, Introduction to Quantum Data Science (Jan 2023 – Feb 2023) Director: Dr. Kion Kim

Research & Leadership Experience

UNC Chapel Hill **Won Lab, Department of Genetics** (Oct 2023 – Present)
Ph.D. Researcher Research in single-cell and functional genomics, including in vivo MPRA and scMPRA
Development of statistical and computational methods for high-dimensional genomic data
Advisor: Prof. Hyejung Won, Web : <https://www.wonlab.org/>

Korea Quantum Computing **R&D Department** (Jun 2022 – May 2023)
Researcher IBM Hub activities for quantum computing outreach and research in quantum data science
Conducted projects in quantum data science and delivered introductory lectures on quantum computing
Supervisor: Dr. Kion Kim

Yonsei University **Quantum DnA Laboratory** (Mar 2022 – Feb 2023)
Researcher Research on quantum convolutional neural networks and quantum error mitigation
Advisor: Prof. Daniel Kyungdeock Park

Yonsei University **Institute of Data Science** (Mar 2021 – Aug 2023)
Lead Consulting Assistant Led statistical consulting projects across disciplines (biology, social science, engineering, etc.)
Consulted 20+ cases in 2021; led junior consultants and supervised projects in 2022
Director: Prof. SeungHo Kang

Yonsei University **Data Science Lab (DSL)** (Jan 2019 – Dec 2020)
Academic Coordinator Undergraduate academic society focused on data science and statistical theory
Founding member; designed study programs and coordinated projects
Advisor: Prof. TaeYoung Park

Programming Skills

Programming: Python (Mudata, Dask, FAISS, scikit-learn, PyTorch/TensorFlow),
R (Seurat, Rcpp, Shiny, tidyverse), SAS, Linux, Slurm
Tools & Platforms: Docker, Git, SQL, Notion, Slack

Awards & Honors

May 2019 Excellence Prize, 2019 Embrain Panel Big Data Analysis Competition
Fall 2019 High Honors, Yonsei University