

Ekaterina Ingeborg Hofrenning

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EDUCATION

COLUMBIA UNIVERSITY

Mailman School of Public Health, New York, NY.

Master of Science in Biostatistics

(Degree expected: May 2025)

MACALESTER COLLEGE, St. Paul, MN

Majors: Mathematics (Applied Mathematics and Statistics), Economics

Minors: Dance, Classics

Bachelor of Arts, May 2021

Cum Laude, GPA: 3.71

EXPERIENCE

MAYO CLINIC, Rochester, MN

June 2021 — Present

Department of Quantitative Health Sciences, Division of Biostatistics and Clinical Trials

Statistical Programmer

- Provide statistical support to the Mayo Clinic Study of Aging (MCSA) and Mayo Clinic's NIH Specialized Center of Research Excellence (SCORE) study: Sex-Specific Effects of Endocrine Disruption on Aging and Alzheimer's Disease
 - Collaborate with biostatistics team and present findings to primary investigators
 - Clean data, create data visualizations, and conduct statistical analyses
 - Write statistical methods sections for manuscripts
- Use SQL to retrieve and clean data for a natural language processing algorithm to predict nurses' orders

MACALESTER COLLEGE, St. Paul, MN

January 2020 — May 2021

Supplemental Instructor for Principles of Economics (Spring 2021) and

Teaching Assistant for Statistical Machine Learning (Spring 2020)

- Used R to help students build models, wrangle datasets, and create data visualizations. Graded homework. Taught introductory economics concepts, created review worksheets for students.

RESEARCH

Published:

- Mielke, M. Kapoor, E. Geske, J., Fields, J., LeBrasseur, N., Morrow, M., Winham, S., Faubion, L., Castillo, A., **Hofrenning, E.**, et al., "Long-term effects of premenopausal bilateral oophorectomy with or without hysterectomy on physical aging and chronic medical conditions. (P17-3.001)" *Menopause* Vol. 30 (11) (November 2023)
- Ramanan, V., Gebre, R., Graff-Radford, J., **Hofrenning, E.**, et al. "Genetic Risk Scores Enhance the Diagnostic Value of Plasma Biomarkers of Brain Amyloidosis" *Brain* (June 5, 2023) <<https://doi.org/10.1093/brain/awad196>>
- Shir, D., Mielke, M., **Hofrenning, E.** et al. "Associations of Neurodegeneration Biomarkers in Cerebrospinal Fluid with Markers of Alzheimer's Disease and Vascular Pathology" *Journal of Alzheimer's Disease* vol. 92, no. 3,(2023); < <https://doi.org/10.3233/JAD-221015>>
- Gebre, R., Senjem, M., Sheelakumari, R. Schwarz, C., Gunder, J., **Hofrenning, E.**, et al. "Cross-scanner harmonization methods for structural MRI may need further work: A comparison study" *Neuroimage* Vol. 269, 1 April 2023, 119912; <<https://doi.org/10.1016/j.neuroimage.2023.119912>>
- Shir, D., Graff-Radford, J., **Hofrenning, E.**, et al., "Association of Plasma GFAP with Neuroimaging of Alzheimer's and Vascular Pathology (P4-3.001)" *Neurology* Vol. 98 no.18 (May 3, 2022) < [Association of plasma GFAP with neuroimaging measures of amyloid, tau, neurodegeneration and vascular pathology \(P4-3.001\) | Neurology](https://doi.org/10.1213/NEP.0000000000001015)>
- Graff-Radford, J., Mielke, M., **Hofrenning, E.**, et al., "Association of plasma biomarkers of amyloid and neurodegeneration with cerebrovascular disease and Alzheimer's disease" *Neurobiology of Aging* Vol. 119 (2022) < <https://doi.org/10.1016/j.neurobiolaging.2022.07.006> >
- Bermudez, C., Raghavan, S., Machulda, M., Przybelski, S., **Hofrenning, E.**, et al., "Cerebellar infarcts are associated with a higher frequency of dementia and decreased performance in cognitive domain of

memory, attention, and language. (P17-3.001)” *Neurology* Vol. 98, No. 18 (May 3, 2022) <Cerebellar infarcts are associated with a higher frequency of dementia and decreased performance in cognitive domains of memory, attention, and language. (P17-3.001) | Neurology>

Undergraduate:

- “Impact of Ethnic Enclaves on Immigrant Earnings”, Senior Capstone Economics Paper
- “Effect of Education and Lottery Incentives on HIV: Evidence from Lesotho”, Senior Economics Paper
 - Conducted heterogeneity analysis by education for Lesotho conditional lottery program
- “Medicaid’s Impact on Racial Health Disparities”, Econometrics Paper
 - Oregon Health Insurance Experiment analysis

SKILLS

- Programming: R, SAS, Python, SQL, Stata, Excel
- Statistical: mixed modeling, longitudinal data, machine learning/AI

HONORS

- Omicron Epsilon Delta (Economics Honor Society)
- David Wick Endowed Prize in Choreography & David Wick Endowed Prize in Performance

OTHER SUMMER EMPLOYMENT

- **U.S. BANK**, Minneapolis, MN Summer 2020
Business Systems Analyst Intern. Managed loan software testing data using Excel.
- **MINNESOTA ORCHESTRA** Summer 2019
Fundraising Development Intern. Cleaned and analyzed donor data. Engaged donors at events.

ACTIVITIES

Macalester College

- Campus Tour Guide
- Women in Economics Club
- Class Agent (alumni fundraiser)

Dance

- American Ballet Theater Summer Intensive Participant (NYC, 2019)
- Performed at the Kennedy Center (DC, 2018) and Jacob’s Pillow Dance Festival (2018)
- Guest choreographer for Ballet Co.Laboratory dance company (2019)
- Ballet instructor

Volunteering

- Urban Arts Academy classroom aide
- St. George Greek School Modern Greek language instructor