

Jaylen Lee, PhD

Principal Statistician - Institute for Clinical & Translational Science

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EDUCATION

- 2017–2022 **Doctor of Philosophy, Statistics**, *University of California - Irvine*, Irvine, CA.
Thesis: Bayesian State Space Models for Dynamic Functional Connectivity using fMRI Data
- 2017–2019 **Master of Science, Statistics**, *University of California - Irvine*, Irvine, CA.
- 2014–2016 **Bachelor of Science, Mathematics**, *James Madison University*, Harrisonburg, VA.
- 2013–2014 **Associate of Science, Mathematics**, *Thomas Nelson Community College*, Hampton, VA.
- Phi Theta Kappa Member (Honor Society)
- Magna Cum Laude (Honors)

FELLOWSHIPS & GRANTS

- 2019–2022 **NSF Graduate Research Fellowship**.

ACADEMIC PAPERS

- 2022 **A Predictor-Informed Multi-Subject Bayesian Approach for Dynamic Functional Connectivity**, *Lee, J., Hussain, S., Warnick, R., Vannucci, M., Menchaca, I., Seitz, A. R., ... & Guindani, M.*
arXiv preprint arXiv:2210.01281.
- 2018 **Dimension Reduction of Gene Expression Data**, *Lee, J., Ciccarello, S., Acharjee, M. et al.* .
J Stat Theory Pract 12: 450. <https://doi.org/10.1080/15598608.2017.1413456>

EXPERIENCE

RESEARCH

- Summer 2018 **Graduate Student Researcher**, *UC Irvine*, Dr. Michele Guindani, Graphical Models for fMRI.
– 2022 Dissertation Research. Bayesian State Space Models for Dynamic Functional Connectivity using fMRI Data
- Summer 2016 **NSF-REU**, *Lamar University*, Dr. Kumer Das, Statistical Methods for Microarray Analysis.
A comparison study on latent variable regression techniques and their effectiveness with microarray data.
- Spring 2015 **Collaborative Research Project (CRP)**, *James Madison University*, Dr. A. Tongen.
Research on open problems in tropical geometry, working in collaboration with students from across the country.

TEACHING

- Fall 2017 – **Teaching Assistant**, *UC Irvine*, Introductory Statistics.
- Winter 2018 - Held regular office hours, led discussion sections, graded exams, substitute as lecturer when needed.
- Spring 2017 **High School Teacher**, *Bruton High School*, Algebra/Geometry.
- Long term substitute high school teacher. Responsible for preparing students for state examinations, maintaining classroom order, and grading assignments.
- Fall 2016 **Peer Tutor**, *JMU Science & Math Learning Center*, Mathematics Specialization.
- Held regular hours for walk-in math tutoring in the calculus sequence, linear algebra, and introductory statistics.

TECHNICAL

- 2020 **Data Science Intern, PhD**, *Meta*.
- Created machine learning pipeline for intuitive interpretation of ranking algorithms
- 2020 **Data Science Intern, PhD**, *Genworth Mortgage Insurance*.
-Created machine learning pipeline for evaluating black box pricing system changes effects on market share.
- 2016 **Student Consultant**, *Harrisonburg Free Clinic*.
-Evaluated the usefulness of a penalty fee for patients who fail to show up to appointments using non-parametric methods.

VOLUNTEERING

- 2019 – 2022 **DECADE PLUS**, *UC Irvine*.
-Graduate Student mentor to undergraduate students from under-represented backgrounds.

2019 – 2022 **DECADE Representative**, *UC Irvine*.

- Serve as student representative for the statistics department for DECADE student council
- Serve as department liaison between students/faculty/administration

2015, 2016 **Expanding Your Horizons**, *James Madison University*.

- Annual event with the goal of increasing participation of middle school girls in STEM fields
- Served as a session assistant, guide, and assisted in data entry.

SOFTWARE SKILLS

R, Python, Matlab, Apache Spark

CONFERENCES, AWARDS & RECOGNITIONS

CONFERENCES & TALKS

Joint Statistical Meeting Irvine, CA. August 10, 2021

- Bayesian Non-homogeneous Hidden Markov models for Dynamic Functional Connectivity* : 15 min presentation.

MIND Emerging Scientist Symposium Irvine, CA. February 21, 2020

- Bayesian Non-homogeneous Hidden Markov models for Dynamic Functional Connectivity* : Poster.

Lamar University Colloquium Beaumont, TX. August 15, 2016

- Dimension Reduction of Gene Expression Data* : Undergraduate lecture.

Shenandoah Undergraduate Mathematics and Statistics (SUMS) Conference

Harrisonburg, VA. September 24, 2016

- Dimension Reduction of Gene Expression Data* : 15 min presentation.

Research Experience for Undergraduates Symposium Arlington, VA. October 24, 2016

- Dimension Reduction of Gene Expression Data* : Poster Session.

AWARDS, HONORS, & RECOGNITIONS

2022 **ARCS Foundation Beckman Scholar**, *UC Irvine*.

2021 **ARCS Foundation Scholar Award**, *UC Irvine*.

2021 **Outstanding DECADE Member Award**, *UC Irvine*.

2016 **Dean's List**, *James Madison University*.

2016 **Putnam Exam Official Team Member**, *James Madison University*.

2016 **Pi Mu Epsilon**, *Virginia Gamma Chapter*.