

Madison Ell

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Summary

Highly driven third-year computational mathematics undergraduate at UCLA actively seeking data science and data engineering internships. Proficient in programming languages such as Python and R, with a solid foundation in statistical analysis and data manipulation techniques. Demonstrated experience in applying mathematical concepts to solve complex problems, as showcased through successful data analysis and modeling projects. Strong problem-solving abilities, meticulous attention to detail, and effective communication skills. Eager to contribute to a dynamic team and gain practical experience in leveraging data-driven insights for impactful decision-making.

Experience



Research Assistant

University of California, Davis

May 2023 - Present (2 months)

Working alongside faculty mentor and two other undergraduate students on cataloguing and studying the topological properties of DNA knots from bacteriophage P4.

UC Davis Pure and Applied Math REU



Research Assistant

Lafayette College

Jun 2022 - Aug 2022 (3 months)

Worked with my faculty advisor and three other undergraduate students to conduct research in Bayesian statistical breakpoint analysis and modeling. We presented our work at the 2023 Joint Mathematics Meetings. Part of 2022 Lafayette College Math REU.

<https://meetings.ams.org/math/jmm2023/meetingapp.cgi/Paper/15315>



Teaching Assistant

Kumon North America, Inc.

Aug 2018 - Aug 2019 (1 year 1 month)

I worked with students as a teaching assistant for the Kumon program. I guided students through the Kumon math and reading curricula and helped them develop the fundamental skills necessary to succeed at school. My duties included teaching, grading classwork and homework, and preparing classwork for each student.



Research Assistant Intern

UCI School of Medicine

Jul 2019 - Jul 2019 (1 month)

I collaborated with team members to write a systematic review of the effectiveness of aromatherapy palliative care in cancer patients.

Jl Williams, I Bade, S Arora, M Ell, G Shen, S Udata, B Afghani. "Use of aromatherapy as a complementary therapy in alleviating chemotherapy related adverse effects in cancer patients". Journal of Investigative Medicine, 68, 1, American Federation for Medical Research, 2020, University of Southern California, Los Angeles, CA; University of California Irvine, Irvine, CA; CHOC Hospital of Orange County, Orange, CA.

Education



UCLA

Bachelor of Science - BS, Mathematics of Computation
2023 - 2025



Fullerton College



California Virtual Academy @ San Diego

High School Diploma
2016 - 2020
Advanced Placement/Honors

Skills

Data Analysis • LaTeX • R • C++ • Statistical Modeling • Statistical Data Analysis • Teamwork • Organizational Skills • Quantitative Research • Python (Programming Language)

Honors & Awards



Student of Distinction Award - Fullerton College

Apr 2023