

Ajay Kumar Raja

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Goals	I am a hard-working, conscientious first-year graduate student in the mathematics department at the University of Illinois, Urbana-Champaign. I seek a challenging research opportunity within a dynamic academic setting to enrich my skills and aspirations towards math research.
Education	Mathematics, University of CA, Berkeley (Class of 2021). Graduated with honors. GPA: 3.468.
Skills	LaTeX and Tikz, Google Suite and Microsoft Office including Word, Excel, and PowerPoint, C++ and Python.
Research	<ul style="list-style-type: none">• Research Group in Contact Geometry, analysing the construction of Huang in A Dynamical Construction of Liouville Domains.• Research Seminar on K-Theory (MATH 199), presented and organized by graduate students. I presented on Quillen's work on the complex cobordism spectra and $MU(*)$, in the context of formal group laws.• Homological Algebra (Univ. of CA, Berkeley Directed Reading Program, 2018)
Teaching	<p>Teaching Assistant TA at the University of Illinois, Urbana-Champaign from Aug 2021 to the present. Taught and graded for two sections of MATH 220 in Fall 2021. Grading for two sections of MATH 347 and one section of MATH 402 in Spring 2022.</p> <p>Math Tutor Self-employed, April 2017 to present. Worked for the Bridging Berkeley after-school program in Spring 2020, tutoring students at Willard Middle School. Tutored for Reading Town Fremont in Summer 2021, teaching students in Algebra I and II and MOEMS (Mathematical Olympiads for Elementary and Middle Schools).</p> <p>Math Grader with University of California, Berkeley</p> <ul style="list-style-type: none">• Fall 2020: MATH 113 Introduction to Abstract Algebra, taught by Semeon Artamonov.• Fall 2019: MATH 185 Introduction to Complex Analysis, taught by Prof. Rui Wang.• Summer 2019: MATH 110 Introduction to Linear Algebra, taught by Mr. Diego Bejarano Rayo.• Spring 2019: MATH 113 Introduction to Abstract Algebra, taught by Prof. Mariusz Wodzicki.• Fall 2018: MATH H110 Honors Introduction to Abstract Algebra, taught by Prof. Virginia Harrison.• Summer 2018: MATH 110 Introduction to Linear Algebra, taught by Prof. Onyebuchi Ekenta.• January – May 2018: MATH 113 Introduction to Abstract Algebra, taught by Prof. Virginia Harrison.

	<ul style="list-style-type: none">• August – December 2018: MATH H110 Honors Introduction to Linear Algebra, taught by Prof. Virginia Harrison.
Awards	<ul style="list-style-type: none">• Presidential Service Award, Gold, 2016 (volunteered at community library for over two years)