

# Avinash Iyer

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**Email:** iyera@oxy.edu

**Phone:** (408) 203-8125

**Website:** blog.avinashiyer.xyz

**ABOUT ME** Aspiring mathematics PhD student with a particular interest in functional analysis.

**EDUCATION** *Bachelor of Arts* in Mathematics May 2025 (Expected)  
GPA: 3.94  
Occidental College, Los Angeles, CA

**RELEVANT COURSES** **Completed Courses:** Linear Algebra, Abstract Algebra, Topology, Graph Theory, Real Analysis, Real Analysis II (Metric Spaces and Measure Theory), Algebra II (Ring Theory, Field Theory, and Galois Theory), Complex Analysis, Ordinary Differential Equations, Set Theory and Foundations of Mathematics, Mathematical Methods in Physics, Advanced Linear Algebra.

**Planned Courses (Spring 2025):** Partial Differential Equations, Mathematical Methods in Physics II, Amenability and  $C^*$ -Algebras (Honors Thesis Independent Study), Data Structures, Algebraic Geometry (Independent Study).

**PROJECTS AND PAPERS** *Honors Thesis:* ongoing thesis project for Honors in the Mathematics major, with central topic of amenability. Aim is to create a well-written exposition of a high-level topic suitable for mathematically mature undergraduates to understand and glean meaningful results from.

*Research Experience for Undergraduates:* NSF-REU at Texas A&M-Commerce, member of the Complex Analysis research group under Dr. Mehmet Celik, studying excess area identities under operators on particular function spaces. Research presented at Occidental College and as a group at Joint Mathematics Meetings 2025.

*Power BI Full Floor Dashboard:* project during internship at Onto Innovation, using Power Queries to harmonize different tool families' information, and used Synoptic Panel to visualize data.

*Personal Website:* used GitHub Pages and Jekyll to create a website.

AWARDS AND HONORS	Dean's List	Fall 2021–Spring 2024
	President's Scholarship	Fall 2021–Present
	William Lowell Putnam Exam	1/120, 8/120
EXPERIENCE	Section Editor <i>The Occidental</i>	September 2023–Present
	<ul style="list-style-type: none"><li>• Worked with senior team, co-editors, and writers to ensure high-quality opinion articles.</li><li>• Managed demanding weekly schedule while full-time student in upper division math and economics courses.</li><li>• Ensured all articles were harmonized with AP Style.</li></ul>	
	Staff Writer <i>The Occidental</i>	January 2022–Present
	<ul style="list-style-type: none"><li>• Authored over 20 articles, including reported stories and opinions.</li><li>• Interviewed at least 3 sources per reported story, met demanding weekly schedule.</li><li>• Worked with editors to ensure high-quality story.</li></ul>	
	Data Analytics Intern <i>Onto Innovation, Milpitas, CA</i>	May 2023–August 2023
	<ul style="list-style-type: none"><li>• Worked on process development within Metrology Business Unit.</li><li>• Improved Power Automate workflows for process improvements across 3 product families.</li><li>• Integrated data sources from manufacturing plans and floor information to create Power BI reports that provided at-a-glance understanding of state of manufacturing.</li></ul>	
SPECIALIZED SKILLS	<i>Soft Skills:</i> consensus-building, clear and effective communication, time management. <i>Technical Skills:</i> L <sup>A</sup> T <sub>E</sub> X, technical writing, logical deduction and problem-solving.	