

KHOI VO

Mathematics Instructor / Lecturer | Applied Mathematics | Mathematical and Computational Modeling
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TEACHING PROFILE

Ph.D. candidate in Mathematics at UC Riverside with experience as an instructor of record, graduate teaching assistant, course leader, mathematical modeling competition coach, and community educator. Taught and supported courses from statistics, algebra, precalculus, and calculus through differential equations, numerical analysis, optimization, topology, discrete mathematics, and mathematical modeling. Recognized with UCR Graduate Division's Outstanding Teaching Assistant Award and completed a competitive University Teaching Certificate. Committed to clear explanations, active learning, inclusive student support, and computationally informed mathematics teaching.

EDUCATION & TEACHING CERTIFICATIONS

University of California, Riverside - Ph.D. in Mathematics, expected 2027

Advisor: Distinguished Professor Mark Alber. Advanced to candidacy, April 2025; passed written qualifying exams in Applied Mathematics and Partial Differential Equations.

University Teaching Certificate, University of California, Riverside

Competitive university-wide teaching program with limited annual admission.

Sep 2024-Mar 2025

California State University, Long Beach - M.S. in Mathematics

Edison Graduate STEM Scholar.

2019

University of California, Los Angeles - B.S. in Mathematics

Alumni Scholar Award.

2015

Arizona State University - TESOL Certificate, 150 hours

Teaching English to Speakers of Other Languages.

TEACHING EXPERIENCE

University of California, Riverside - Instructor of Record / Course Director / Graduate Teaching Assistant

Sep 2021-Present

- Instructor of record for Math 6A, Introduction to Calculus, Summer 2023.
- Primary instructor for Applied Mathematics Qualifying Exam Preparation Seminar, Summers 2023, 2024, and 2025.
- Directed Math 194 undergraduate reading/research courses in biological modeling, stochastic processes/modeling, cellular automata, and high-performance computational models; guided student projects toward public presentation through the UCR AWM Symposium site.
- Led discussion sections, office hours, exam reviews, grading support, and concept reinforcement for lower-division, upper-division, and graduate-level mathematics courses.
- Supported diverse students in statistics, algebra, precalculus, calculus, linear algebra, differential equations, PDEs, optimization, topology, numerical analysis, modeling, computational science, and discrete mathematics.

California State University, Long Beach - Teaching Associate

Aug 2017-Jun 2019

- Taught Business Calculus and Microeconomics; prepared lessons, supported students, communicated course expectations, and managed grading responsibilities.

Golden West College - Faculty Intern, Mathematics

Jan 2018-May 2018

- Taught College Algebra and helped students strengthen algebra foundations for transfer-level mathematics.

Ututoring Initiative Education — Mathematics Instructor and cofounder

August 2018 – Present

Teach and tutor students in K–12 mathematics, Algebra, Precalculus, Calculus, and Statistics, with emphasis on individualized support, problem-solving strategies, and academic confidence.

AIG Education - Mathematics Instructor

Aug 2018-Feb 2023

- Taught mathematics and coached students for American Mathematics Competitions, emphasizing problem-solving, reasoning, and contest strategies.

Boston Education - Volunteer Mathematics Instructor

Jan 2018-May 2021

- Taught and coached a competition mathematics team through enrichment problem-solving activities.

Language Door Irvine - Vietnamese and ESL Instructor

Jun 2014-May 2021

- Taught Vietnamese and ESL to adult learners and professionals; adapted instruction to each student's background, language level, and goals.

Orange Coast College - Teaching Assistant, Honors Tensor Calculus

Oct 2015-Jun 2016

- Held office hours and supported advanced upper-division/graduate-level mathematics instruction.

COURSES TAUGHT AND SUPPORTED

Lower-Division Mathematics	College Algebra; Precalculus; Introduction to Calculus; First-Year Calculus; Second-Year Calculus; Business Calculus; Calculus for Health Sciences, Statistics.
Upper-Division / Advanced Mathematics	Linear Algebra; Ordinary Differential Equations; Partial Differential Equations; Optimization; Numerical Analysis; Advanced Numerical Analysis; Discrete Mathematics; Topology; Honors Tensor Calculus.
Applied, Computational, and Seminar Courses	Mathematical Modeling; Mathematical Models and Computational Science; Biological Modeling; Stochastic Processes and Modeling; Cellular Automata; High-Performance Computational Models; Applied Math Qualifying Exam Preparation Seminar.

TEACHING, MENTORING & COMMUNITY LEADERSHIP

- **President, SIAM Student Chapter at UCR, 2023-2026:** organized applied mathematics community activities, professional development, and student-facing academic support.
- **COMAP MCM/ICM Coach, 2026:** coached two undergraduate teams (six students total) in mathematical modeling, problem solving, and technical communication; both teams earned the Successful Participant designation.
- **UCR Mathematics Department Recruitment Ambassador, 2022-2025:** represented the department and supported prospective graduate students.
- **Graduate Student Mentor, Pacific Mathematic Alliance at UCR, 2022-2023:** mentored students entering mathematical research and graduate pathways.
- **Volunteer President, Vietnamese Community of Southern Californians, 2018-Present:** coordinated ESL, naturalization preparation, and computer literacy classes; wrote and edited grant proposals; managed educational outreach. Instructor of ESL to thousands of adults.
- **Volunteer Assistant Director, Interfaith Organization of Ten Thousand Crosses Emanated, 2016-Present:** supported education and community outreach operations.
- **Panelist Speaker:** Pacific Summer Open Mathematical Problems Colloquium and UCR New Graduate Student Welcoming Workshop, 2022.

SELECTED TEACHING & SERVICE RECOGNITION

- **Outstanding Teaching Assistant Award, UCR Graduate Division, May 2024:** awarded for excellence in teaching.
- **Vernon A. Kramer Memorial Service Award, UCR Mathematics, June 2025 and June 2023:** recognized for volunteer service enhancing mathematics experiences for underserved communities.
- **First Prize Graduate Essay Presentation Award and First Prize Graduate Poster Presentation Award, May 2026:** recognized at UCR Pathways to Excellent 2026.
- **UCR Dean's Distinguished Fellowship Award, 2021:** major Ph.D. fellowship support.
- **Edison Graduate STEM Scholar, CSU Foundation, 2016-2017:** selected as one of 16 outstanding STEM graduate students across the CSU system.

SKILLS FOR TEACHING AND COMPUTATIONAL INSTRUCTION

- **Mathematics:** calculus, linear algebra, probability, stochastic processes, differential equations, PDEs, numerical analysis, optimization, mathematical modeling, mathematical biology, and computational biology.
- **Computing and instructional technology:** Python, MATLAB, C++, LaTeX, Linux, CUDA/GPU computing, high-performance computing clusters, Google Cloud, SAS Statistics, Microsoft SQL, HTML, and GitHub.
- **Learning platforms and support:** online instructional support, Beachboard/LMS experience, office-hour mentoring, review sessions, exam preparation, and differentiated support for multilingual adult learners.
- **Languages:** Vietnamese native; English fluent.

SELECTED RESEARCH AND PUBLICATIONS RELEVANT TO TEACHING

- **Computational and experimental biological modeling:** coauthor, "Combined computational modeling and experimental study of the biomechanical mechanisms of platelet-driven contraction of fibrin clots," Communications Biology, 2023.
- **Industry and applied modeling:** team member, "Commitment Planning for Drawdown Vehicles in a Stochastic Setting," Mathematics in Industry Reports, 2022.
- **Research communication:** presented widely across AMS, MAA, SIAM, modeling camps, and summer schools; uses research examples to connect abstract mathematics with applications.