

# Ryan Gomberg

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🔗 <https://ryangomberg.github.io/ryangomberg/>    in Ryan Gomberg    🌐 ryangomberg

## Technical Skills

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R, MATLAB, Python, Excel, LaTeX, GitHub

## Education

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**University of California, Irvine**

*September 2021 - Present*

*BS in Applied and Computational Mathematics*

*(Expected June 2025)*

- GPA: 3.51/4.0
- **Coursework:** Mathematical Machine Learning, Statistics for Data Science, Numerical Analysis, Mathematics of Finance, Fixed Income, Probability, Technical Writing, Mathematical Modeling

## Experience

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**Mentor**

*Irvine, CA*

*Math CEO*

*January 2024 - April 2024*

- Engaged with high school students in low-income, diverse areas in inquiry-based activities with a strong emphasis on mathematics and other topics in STEM
- Collaborated with other mentors in curating new activities and maintaining student involvement
- Led group activities and encouraged conversation through icebreaker questions, active listening, and by introducing new ideas
- Learned how to partition challenging concepts into smaller, digestible problems

**Self-employed**

*San Diego, CA*

*Private Tutoring*

*Sept 2020 - June 2021*

- Provided one-on-one instruction to middle and high school students to prepare for academic tests and improve academic performance in mathematics
- Prepared lessons and supplements to monitor and assess student progress
- Developed study strategies and time management skills depending on each student's needs and learning styles
- Demonstrated various problem-solving methods to allow better understanding of a concept
- Helped three students achieve their academic goal

## Projects and Personal Initiatives

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**Machine Learning on Adult Census Income Dataset**

[ML Project repository](#) 🔗

- Developed a report, following PEP8 style guidelines, on machine learning algorithms designed to predict and identify trends within a U.S. census dataset.
- Applied libraries such as Scikit-learn, Seaborn, and Matplotlib to perform exploratory data analysis
- Tools Used: Python, Excel

**Notes for Mathematical Machine Learning and Math of Finance**

[Notes repository](#) 🔗

- Compiled and formatted 50-page notes for two classes with chapters using LaTeX, designed with self-curated diagrams and plots
- Tools Used: LaTeX, PowerPoint, MATLAB

**Guided Research on Algebraic Geometry**

*March 2025 - Present*

- Research is motivated by deep connections between algebra and geometry such as algebraic varieties, Zariski's topology, and ring theory.
- Findings will be given in a 15 minute group presentation in front of a committee.