Ryan Gomberg

 San Diego, CA

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 ${\cal S}$ https://ryangomberg.github.io/ryangomberg/ in Ryan Gomberg ${\bf C}$ ryangomberg

Technical Skills

R, MATLAB, Python, Excel, LaTeX, GitHub

Education

University of California, Irvine

Sept 2021 - Jun 2025

BS in Applied and Computational Mathematics

(Obtained June 2025)

o GPA: 3.54/4.0

• Coursework: Mathematical Machine Learning, Statistics for Data Science, Numerical Analysis, Mathematics of Finance, Fixed Income, Probability, Technical Writing, Mathematical Modeling

Experience

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
- o 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
- o Helped three students achieve their academic goal

Projects and Personal Initiatives

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.
- o Applied libraries such as Scikit-learn, Seaborn, and Matplotlib to perform exploratory data analysis
- o 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
- o Tools Used: LaTeX, PowerPoint, MATLAB

Guided Research on Algebraic Geometry

- Research is motivated by deep connections between algebra and geometry such as algebraic varieties, topological spaces, and ring theory.
- Findings were given in a 15 minute group presentation in front of a committee.