

Joseph Weil

jweil@ucsd.edu | (916) 500-9662 | JoeWeil.com | linkedin.com/in/joseph-weil-654197282

Professional Summary

Passionate and analytical recent mathematics undergraduate with an interest in applying theoretical knowledge and rigorous coursework in math and physics to develop industry-ready competencies in research, data science, or related fields. Experienced in applying numerical methods to various scientific fields, with the ultimate goal of leveraging problem-solving skills to contribute to interdisciplinary work in data science.

Education

University of California, San Diego

Oct 2020 – Mar 2024

- BS in Mathematics – Applied Science
- Minor in German Studies
- GPA: 3.615

Relevant Experience

Mathematics LLM Trainer, Outlier – Oakland, CA (Remote)

Apr 2024 – Present

- Assess AI-generated solutions to advanced undergraduate-level mathematical problems from subjects such as calculus and linear algebra
- Meticulously edit and rewrite solutions in LaTeX, ensuring mathematical accuracy and conformity to proper notation

Quantum ML Intern – Florence Quantum Labs Startup (Remote)

Sep 2024 – Oct 2024

- Gained foundational knowledge in quantum computing concepts, including qubits, quantum gates, and quantum algorithms, as well as machine learning concepts
- Engaged in fundamental quantum computational programming in the Quiskit framework with the goal of applications to climate forecasting

Relevant Coursework

Mathematics: Differential, Integral, Multivariate, and Vector Calculus for Engineering, Differential Equations, Real Analysis, Statistical Methods, and Numerical Analysis: Linear algebra, Approximations, and Nonlinear Equations

Physics: Mechanics, Electricity and Magnetism, Optics, Thermodynamics, Fluids, Waves, Relativity and Quantum, Stellar Astrophysics and Black Holes, Atmospheric Dynamics, Ocean Waves

Skills and Languages

- **Technology:** Python, Pandas, MATLAB, R, Java, LaTeX, SQL
- **German Language:** Intermediate orally and fluent reading/writing
- **Additional:** Problem-solving, Leadership, Communication and Customer Service

Projects

See personal website above for these projects in their entirety.

- **iNaturalist API Observation Data Scraper:** Developed a Python-based web scraper to collect and preprocess ecological observation data from the iNaturalist API, optimizing data handling for further analysis.
- **iNaturalist Data Case Study:** Conducted data cleaning, visualization, and statistical analysis on iNaturalist ecological data to both identify patterns in species distribution and biodiversity and assess ecological accuracy.

Teaching Experience

Mathematics Tutor – Private, San Diego, CA

June 2023 – June 2024

- Prepared and executed detailed and effective learning curricula for several collegiate and pre-collegiate students in differential calculus and college preparatory math

Additional

Certification: Scientific Computing in Python – FreeCodeCamp

Oct 2024 – Nov 2024

Extracurricular: UCSD Collegiate Sailing Team

Sept 2021 – Mar 2024