



Jonathan Elsner

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Skills

Python | SQL | pytorch | scikit-learn | NumPy | pandas | git | Docker | CodeOcean | Optimization

Professional Experience

Workshop Specialist, Allen Institute

Jun 2024 – Sep 2024 | Seattle

- Revised code and technical writing explaining computational neuroscience
- Developed Docker containers for cloud workstations in CodeOcean
- Taught coding and computational techniques for analysis of large datasets

Teacher, C2 Education

Dec 2023 – Jun 2024 | Issaquah

- Tutored 3 students at a time in 2 hour sessions
- Taught SAT, ACT, and AP material
- Raised the GPAs of dozens of students

Math Tutor, University of Washington

Oct 2021 – Jun 2023 | Seattle

- Tutored students in first-year calculus
- Taught dozens of students in one-on-one sessions daily
- Answered specific questions about students' homework problems
- Developed relationships with students to better understand their learning needs

Education

Applied and Computational Mathematics (MS), University of Washington

Sep 2024 – Jun 2025 | Seattle

Budapest Semesters in Math Education

Jun 2023 – Aug 2023 | Budapest, Hungary

Discovered Hungarian pedagogical methods for communicating math.

Mathematics (BS), University of Washington

Sep 2019 – Jun 2023 | Seattle

Coursework in Optimization, Linear Algebra, Graph Theory, Probability, Numerical Analysis, Real Analysis, Proof Writing, Physics, Data structures and algorithms, Databases, AI, and Machine Learning.

Projects

Spacetime Diagram

- Coded a GUI in JAVA for users to interactively graph objects traveling at relativistic velocities and understand their interactions
- Helped students gain a greater understanding of near-light-speed travel and its effects

OpenCourseWare Predictor

- Trained Decision Trees and logistic regression classifiers
- Predicted which students were likely to receive certification from studies
- Performed LASSO regression for feature selection
- Encoded textual data, normalized all input features, and established a pipeline to train models
- Gained insight into the original data to decide which model performed best
- Achieved ~99% classification accuracy while compensating for overfit

PhotoSorter

- Wrote a program to divide one massive folder of photos into a sorted hierarchy
- Called Microsoft's Graph API to access over 9,000 photos on OneDrive
- Completed sortation in 41 minutes
- Implemented a Queue to batch together expensive API calls and request them on a second thread