

Daniel Ryan Furman

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SKILLS

Programming: Proficient in Python (e.g., Numpy, Pandas, Scikit-Learn, Pytorch, Flask), R, Matlab

Version Control/Databases: GIT, GitHub, SQLite, PostgreSQL, Anaconda, Docker

Writing: Published 4 papers in scientific venues, multiple design docs, & code documentation

Cloud: Growing knowledge of GCP & AWS tools for data science and software development

EXPERIENCE

Nov 2021 - Present Understory.AI - Data Scientist

Mountain View, CA

- **Machine Learning Intern**

- Supported the Software Development team by building and deploying computer vision segmentation models for next-gen land management applications with remote sensing drone imagery. [\[Link\]](#)
- Delivered an MVP in 6 months that is reproducible to new clients/use-cases, developed demo by deploying 4 segmentation models for inference over 10+ scenes (>80% balanced accuracy).
- Validated & managed 100+ GB imagery in GCP, developed a hierarchical label search module for 1:1 label to pixel mapping, collaborated on scalable & accurate instance segmentation models (patch-based logistic regressors, U-Nets), applied texture synthesis packages to generate 1000s of synthetic training patches, wrote communicable documentation & structured software with agile practices.

Summer 2019 Harvey Mudd College - Data Science Researcher

Claremont, CA

- Won an NSF grant to design communicable modeling visualizations of climate impacts forecasted by machine learning classifiers of California species distributions (19 feats., ~7k obs.). [\[DataViz\]](#)
- Built and open-sourced a module [\[PySDMs\]](#) for AutoML geo-classification fit via block cross-validation, multi-seed/sample blending, and model search (Catboost, Logistic Regression, etc.), with AUCs>0.95.

Mar 2019 - Present Contract/Freelance - Data Science Consultant

Remote (USA)

- Strategized re-structuring recommendations with **De Castro, West Inc.** for a real estate partnership shifting 11 unevenly shared assets into 3 majority ownerships by building a search algorithm to minimize value & debt stake change, optimal state exhibited <2% change against ~\$159mm. [\[Blog\]](#)
 - Extracted advanced analytics insights for the **Official World Golf Rankings Ltd.** from over two decades of professional golf tournament data across 21 tours by developing PCA biplots and refining written deliverables, convincing stake-holders to ship updates in Q3 '22 to boost the system's fairness.
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EDUCATION

Anticipated May 2023 University of California, Berkeley, School of Information

Berkeley, CA

Master of Information Management and Systems

Specialization: Machine Learning | Graduate Certificate in Applied Data Science

Teaching: TA for Data Mining @ Berkeley Haas (MBA247.11, Fall 2021) [\[Syllabus\]](#)

Graduated May 2020 University of Pennsylvania, College of Arts and Sciences

Philadelphia, PA

Bachelor of Arts with Distinction in Earth Science

Minor: Mathematics • **Cumulative GPA:** 3.79/4.0

Honors: Rose Research Award [\[Paper\]](#), NSF Award #1757952 [\[Poster\]](#), CURF Grant [\[Write-Up\]](#)

Activities: NCAA D1 Golf Team • Experimental Geophysics Lab