

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, Anaconda, Docker, SQL (e.g., SQLite, MySQL, PostgreSQL)
Writing: Published 4 papers at scientific research venues and numerous technical design docs
Cloud: Growing knowledge of GCP and 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 an automated machine learning software (AutoML) for supervised image segmentation modeling with land management data. [\[Link\]](#)
 - Delivered MVP in 6 months that is easily portable to new projects, developed a software demo by deploying 4 semantic segmentation models over 10 scenes (hitting >80% balanced accuracy target).
 - Validated and managed 100s GB of geospatial data in GCP, researched and designed patch-based logistic regression and U-Net models in Python, generated synthetic data with texture synthesis packages in MATLAB and integrated them into training pipelines, developed hierarchical search functions for 1:1 label to pixel mapping in Python, took leadership over code and project docs.

Summer 2019 Harvey Mudd College - Data Science Researcher Claremont, CA

- Won an NSF grant to build communicable forecasts of climate impacts in CA, by building classifiers in R and Python of species distributions to forecast and visualize shifts (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 and 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 • **Cum. GPA:** 3.79/4.0 • NCAA D1 Golf • Experimental Geophysics Lab

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