Daniel Ryan Furman

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SKILLS

Programming: Python (e.g., Numpy, Pandas, Scikit-Learn, Pytorch, Flask), R, MATLAB
Version Control/Databases: GIT, GitHub, Anaconda, Docker, SQL (e.g., SQLite, MySQL, PostgreSQL)
Cloud: GCP and AWS tools for data science and software development
Writing: Published 4 papers at scientific research venues and numerous technical design documents
OSS: Frequent contributor to the Python open-source community and featured Kaggle competitions

EXPERIENCE

Nov 2021 - Present **Understory.AI - *Data Scientist*** Mountain View, CA

- **Machine Learning Intern**
  - Supported the Software Development team by building and collaborating on an AutoML Python module for supervised & unsupervised image segmentation for next-gen land management. [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.

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.

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

- Won an NSF grant to build classifiers of species distributions in R and Python to forecast and visualize climate impact shifts across California (19 features, ~7000 observations, AUCs>0.95). [DataViz]
- Built and open-sourced a Python module [PySDMs] for AutoML geo-classification fit via block cross-validation, multi-seed/sample blending, and model search (Catboost, XGBoost, Logistic Regression).

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]