JesFord
Senior Data Scientist

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tech skills

♥ Python
pandas, numpy, scipy, pytorch, keras, xgboost, scikit-learn, jupyter, seaborn, matplotlib, prefect, dash, plotly

Git & GitHub
Bash
SQL
C/C++
Travis-CI
AWS & GCP
Sphinx
HTML/CSS
LaTeX
OS X
Linux

volunteering

Women in Data Science
SLC Ambassador, 2019–now

Salt Lake PyLadies
Meetup Organizer, 2017–now

Women in Sci. & Tech.
Member, 2018–2020

publications

9 peer-reviewed papers (5 1st-author) & >30 conference presentations (8 invited).

education

Ph.D. in Physics, 2015
University of British Columbia

B.Sc. in Physics, 2008
Minor in Mathematics
University of Nevada, Reno

profile

Experienced Data Scientist with a passion for applied machine learning and open source software. I bring a practical product driven mindset, an obsession with best practices, and a demonstrated ability to collaborate effectively across teams to achieve goals. I am a regular conference speaker at events including PyCon, PluralsightLIVE, and VisInPractice.

experience

2018–current   **Recursion**   Salt Lake City, UT
Senior Data Scientist 11/2019–current
Data Scientist 4/2018–11/2019
- Trained, optimized, and benchmarked deep neural networks (CNNs and graph NNs) to solve problems in drug discovery.
- Technical lead on teams that productionized the first machine learning models at Recursion, responsible for directing a small team of data scientists, and providing regular updates to VPs.
- Model interpretability including saliency maps, GradCAM, DeepDream.
- Pioneered use of MCMC for Bayesian parameter fitting of experimental data, and developed new visualizations to inform biologists.
- Active Learning for improving class imbalance & minimizing model bias.
- Owned creation of cleaned & standardized labelsets from noisy data, enabling comparison of ML models across data science teams.
- Designed & built custom Google Cloud database for storing ML models, metrics, labels, and predictions; created resources for data science users.
- Led data science team to adopt software best practices for reproducible research and clean production quality code.

2016–2018   **Backcountry.com**   Park City, UT
Data Scientist
- Led design, execution of tests to optimize sales via customer segmentation, product taxonomy, contact method/timing.
- Cross-channel attribution; customer lead scoring; incremental sales.
- Built & deployed interactive dashboards using Plotly Dash.
- Automated processes and pulled disparate data to database summary tables to reduce reporting time for analysts by 99%.
- Built Python package for easily interfacing with Oracle DB from Python, removing multi-tool headache for analytics teams.
- Wrangled messy data from Oracle, Adobe Analytics, Google Trends, Social Media, 3rd-party APIs; enforced data quality across departments.
- Founded and led tutorial and workshop series to elevate technical skills.

2015–2016   **eScience Institute, University of Washington**   Seattle, WA
Data Science Postdoctoral Fellow
- Author of Python package for statistical modeling of galaxy clusters.
- Machine Learning algorithms for hazardous asteroid detection.
- Mentor for the Data Science for the Social Good summer program.

2009–2015   **University of British Columbia**   Vancouver, BC
Research Assistant / PhD Student
- Complex modeling, uncertainty estimation, sampling, parallel processing.

2007   **NASA Jet Propulsion Laboratory**   Pasadena, CA
Summer Undergraduate Research Fellowship