

# Hiranmayi Duvvuri

DATA SCIENTIST

Portland, OR

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## Summary

**Data scientist** with over 5 years of experience in data analytics, research and software development. Working with a newly formed data science team has provided opportunities to make meaningful contributions and have greater influence in decision making. Along with that, I have experience in the end-to-end process of developing and productionizing data science and ETL pipelines. I greatly enjoy any opportunity to learn a new skillset, encourage collaboration both within and outside of the team, and general use of best software practices.

## Skills

**Programming** Python, PostgreSQL, Git, Bash, R, Docker, AWS, GCP  
**Data Science** Pandas/Geopandas, Numpy, Scikit-learn, Matplotlib, Keras, Feature Engineering/ETL, Linear Algebra, Statistics, Predictive Modeling, Machine Learning, Image Processing (OpenCV)

## Experience

### Vacasa

Portland, OR

DATA SCIENTIST

Jul 2018 - Mar 2020

- Designed and developed a model for predicting clean times of homes to improve scheduling housekeepers and reduce overall costs. Took model from conception to production, resulting in an API. \$3.4M ROI (patent in progress).
- Led feature engineering side of data lake project to provide central source of features among both the data science team and rest of the company. Main goal was to reduce duplicate efforts among the team and increase knowledge sharing.
- Data lake project entailed writing tickets and prioritizing work. Mentoring interns. Coordinating with engineering and building out ETL pipelines. Tools used: python/dask/geo packages, s3, Athena + AWS Glue + Redshift Spectrum. This was a continuous project further working with other members of the DS team resulting in 50+ features.
- Extended clean time model to be used by onboarding specialists for contractor rate negotiations. Built out ETL pipeline same method as data lake.
- Worked on first pass recommendation system for Vacasa.com, mobile apps, and marketing. This involved deploying an API as well as other software engineering tasks. The recommendation system suggested markets using s2spheres in order to generalize and better map to other location data at Vacasa. \$2M ROI.
- Other tasks involved communicating results of models and research to those both technical and non-technical, presenting products to larger groups within the company, and documentation of internal products.
- Position unfortunately was impacted by COVID-19.

ANALYST | ANALYST INTERN (SUMMER 2017)

Jun 2017 - Jul 2018

- Automated data analysis pipelines and helped other analysts to increase overall efficiency.
- Investigating owner churn by evaluating data quality, identifying any data gaps and in owner engagement, and working with operation teams to design and implement a plan to decrease owner churn.

### University of Oregon - Institute of Molecular Biology

Eugene, OR

BIOINFORMATICIST - SELKER LAB

Oct 2016 - May 2017

- Updated and managed scripts for analysis of ChIP-seq and RNA-seq data.
- Compared ChIP-seq datasets looking at differences in RNA pol II binding between different strains of *N. crassa* using various data analysis programs and automated using R and bash scripting.

SCIENTIFIC PROGRAMMER - HARMS LAB

Sep 2015 - May 2017

- Developed a GUI using PyQt5 for python API to facilitate isothermal calorimetry (ITC) data. Used C to write a python extension to calculate the binding polynomial in the API. Wrote documentation for GUI using sphinx on Read the Docs.  
Repo: <https://github.com/harmslab/pytc-gui> and <https://github.com/harmslab/pytc>
- Developed an extension of a phage display analysis pipeline. Researched and implemented different methods of data clustering.  
Repo: <https://github.com/harmslab/phagedisplay>

## Involvement

## SPICE

VOLUNTEER

University of Oregon

Jul 2016

- Volunteered for a week helping during the SPICE summer camps which aim to engage young girls in physical sciences. I helped specifically with the engineering/programming camp where participants were building and coding arduino pinball machines.

## Publications

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Hiranmayi Duvvuri, Lucas C. Wheeler, and Michael J. Harms

Biochemistry

PYTC: OPEN-SOURCE PYTHON SOFTWARE FOR GLOBAL ANALYSES OF ISOTHERMAL TITRATION CALORIMETRY DATA

2018

## Education

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University of Oregon

Eugene, OR

B.S. IN BIOCHEMISTRY

Sep 2011 - Sep 2016