Hiranmayi **Duvvuri**

Data Scientist

Portland, OR

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Summary

In my most recent position, I was a **data scientist** at Vacasa in Portland, OR. I have over 3 years of experience in data analytics, research and development in various aspects for both business and science. I am comfortable jumping into unfamiliar projects and learning new skillsets along the way. I have been working with a newly formed data science team, which has allowed me the opportunity to make meaningful contributions and have greater influence in decision making. With working with this team, I have also learned a lot in terms of deployment and the programming aspect of data science and how to productionize a model.

Skills

Programming	Python, PostgreSQL, Git, Bash, R, Docker, AWS
Data Science	Pandas/Geopandas, Numpy, Scikit-learn, Matplotlib, Keras, Data Visualization, Feature Engineering/ETL, Linear Algebra, Statistics, Predictive Modeling, Machine Learning, Image Processing (OpenCV), Documentation, Presentation/Communication (oral and written)

Experience

Vacasa

Portland, OR

Data Scientist — *Jul 2018 - Mar 2020*

- Core project was rebuilding model used for predicted clean times of homes. Main goal was to aid in scheduling housekeepers, cost estimation, as well as reducing overall housekeeping costs. Took model from conception to production, resulting in an API. Extended to a model to be used by onboarding specialists for contractor rate negotiations. ROI of $3.4M (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.
- 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. ROI of $2M.
- 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.

Analyst | Analyst Inter (Summer 2017) — *Jun 2017 - Jul 2018*

- As an analyst, utilized python to aid in automating data analysis pipelines as well as exploring owner churn. Helped other analysts create automated scripts for their own work. Worked closely with the operations department.
- Investigating owner churn involved analyzing current data, identifying any data gaps and in owner engagement, and working with operation teams to come up with a plan to increase and capture both. Started project during summer internship.

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. Done 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 that analyses isothermal calorimetry (ITC) data. Along with this, wrote documentation for GUI using sphinx on Read the Docs as well as a C extension to calculate the binding polynomial in the API.

  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 *University of Oregon*

Volunteer *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

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

University of Oregon *Eugene, OR*

B.S. in Biochemistry *Sep 2011 - Sep 2016*