Hiranmayi **Duvvuri**

Data Scientist
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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
Data Science	Pandas/Geopandas, Numpy, Scikit-learn, Matplotlib, Keras, Data Visualization, Feature Engineering/ETL, Linear Algebra, Statistics, Predictive Modeling, Machine Learning, Image Processing, Documentation, Presentation/Communication (oral and written)

Experience

Vacasa — *Portland, OR*

Data Scientist — *Jul 2018 - Mar 2020*

- Worked from conception to production on an updated model predicting clean times of homes for scheduling and cost estimation. This involved working closely with engineering teams to scope out how model would interact with scheduler and getting model in a production ready state. The result was a greatly decreased error rate with an ROI of $3.4m.
  this was extended to build a model that would help onboarding specialists have data to better negotiate contractor rates.
- 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 (mainly analysts). Main goal was to reduce duplicate efforts among the team and increase knowledge sharing.
  As part of project, wrote tickets and prioritized all work. Mentored two interns. Used python/dask to create features and write them to S3 buckets. Worked with engineering using Athena + AWS Glue to get features from S3 to be queried through Redshift Spectrum. Created over 30 features in 2 months. This was a continuous work in progress as well and gave me experience with geographical data.
- Worked on first pass recommendation system for website, mobile apps, and marketing. This involved an API and taking on a lot of software engineering tasks for deployment. The recommendation system suggested markets using s2spheres in order to generalize and better map to other location data at Vacasa.
- 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 — *Sep 2017 - Jul 2018*

- Continued work on the owner churn model and exploring different methods. Part of this also involved identifying gaps in owner data and engagement as well as some possible ways to to help increase and capture both. Along with that, also identified other data that could be acquired to further help with accuracy of the model.
  Presented this work to COO and other upper management on steps that could be taken to work towards the above.
- Automated various reports using python, bash scripting, and docker. Also helped other analysts with using python to aid in their own work.

Analyst Intern — *Jun 2017 - Sep 2017*

- Main project was creating a model to predict owner churn and find any other indicators to help determine at risk owners.

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

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*