

# Hiranmayi Duvvuri

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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 working in collaborative environments, developing new skills, and constantly growing. Currently, I am taking CS classes in order to further improve my understanding of computer science concepts and keep building out my development skills.

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## SKILLS

**Programming:** Python, PostgreSQL, Git, Bash, Docker, AWS

**Data Science:** Pandas/Geopandas, Numpy, Scikit-learn, Matplotlib, Keras, Feature Engineering/ETL, Linear Algebra, Statistics, Predictive Modeling, Machine Learning, Dask

**Familiarity:** Java, C++, R, GCP

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## EXPERIENCE

### Data Scientist

Vacasa

July 2018 - March 2020, Portland, OR

- 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).
- Reduced duplicated efforts among the team and increased knowledge sharing through building out a data lake of data science features. Used by DS team, analysts, and marketing folks.
- 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. Project was ongoing, resulting in 50+ features.
- Extended clean time model to be used by onboarding specialists for contractor rate negotiations.
- Worked on first pass recommendation system for Vacasa.com, mobile apps, and marketing. This involved deploying a RESTful API as well as other software engineering tasks. The recommendation system suggested markets to users using s2spheres in order to generalize and better map to other location data at Vacasa. \$2M ROI.
- Created internal documentation and presentations to share the work of the data science team and increase awareness.
- Position unfortunately impacted by COVID-19

### Analyst | Summer Intern

Vacasa

June 2017 - July 2018, Portland, OR

- Increased analyst efficiency through automating data analysis pipelines and helping with understanding of python.
- Investigated 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.

### Bioinformaticist

University of Oregon Institute of Molecular Biology

September 2015 - May 2017, Eugene, OR

- 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.
- Developed an extension of a phage display analysis pipeline. Researched and implemented different methods of data clustering.
- 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 for the API. Wrote documentation for GUI using sphinx on Read the Docs.

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## Publications

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

*Biochemistry*

PyTC: open-source python software for global analyses of isothermal titration calorimetry data

2018

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## PROJECTS

### PyTC Project

- Repos found: <https://github.com/harmlab/pytc-gui> and <https://github.com/harmlab/pytc>

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## EDUCATION

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### **BSc in Biochemistry**

University of Oregon • Eugene, OR • 2016

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## INVOLVEMENT

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### **SPICE**

University of Oregon • Volunteer • July 2016

Mentored participants at SPICE (science program to inspire creativity and excellence) engineering/programming camp, which aims to engage young girls in physical sciences. I helped specifically with the engineering/programming camp where participants were building and coding arduino pinball machines.