## Howard Lan

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Education Rice University

Houston, TX

Master of Computer Science, 3.76/4

June 2021

• Coursework includes machine learning, data visualization, grad oop programming, cloud computing, databases, computer systems, probablistic algorithms, etc. TA for COMP 680: Statistics and Data Science.

## The University of Texas at Austin

Austin, TX

Bachelor of Science in Mathematics, 3.60/4

Dec 2018

• Coursework focused in statistics, applied math, scientific computing, and user experience.

Experience Rice University

Houston, TX

Research Assistant

Spring 2021

Member of Dr. Ray Simar's group on analyzing covid data (hsmap.rice.edu) based on seasonal patterns.

- Created interactive SEIR model using D3.js to model spread of the virus.
- Developed the about page content and worked on web development using React.
- Created interactive world maps using Tableau and the Johns Hopkins covid data.

**Rice University** Houston, TX

**Data Science Consultant** 

summer 2020

Member of the D2K Lab where we meet with clients weekly to address their data science problems.

- Met with different clients weekly and wrote report for each client with data science solutions.
- Worked on problems spanning document classification, statistical modeling, database design, survey design, data visualization, detecting signals in data, data engineering/feature engineering, etc.

Cirrus Logic Austin, TX

**Data Science Intern** 

Summer 2018

Semiconductor company that designs audio products for companies like Apple and Samsung.

- Developed a web dashboard (using R, Shiny) to analyze silicon wafer data and help engineers visually monitor false holds/false releases rates based on wafer bin test limits.
- Consulted with product engineers, database administrators, and statisticians to design UI.
- Applied unsupervised learning algorithms (mixture model, k-means clustering) to classify wafers.
- Improved speed of mcmc algorithm greatly by using Rcpp/C++ and numerical approximations.
- Wrote complex SQL queries to retrieve silicon wafer data from Oracle database.
- Analyzed silicon wafer data using Python pandas and Excel.

**SAS Institute** Cary, NC

Software Developer Intern

Summer 2016 and 2017

Analytics software company that provides a suite of software to help analyze, manage, and report data.

- Fixed over 30 high priority UI defects and worked on features in SAS Visual Analytics working with JavaScript/TypeScript, HTML, CSS, jQuery, and OpenUI5.
- Built models using linear/logistic regression, decision trees, random forests, neural networks, etc.
- Presented poster of summer work at intern expo to other interns and company leaders.
- Participated in A/B testing to help improve product usability.

Skills Languages: Python, R, Java, JavaScript, HTML, CSS, C++, SQL.

Big Data Tools: Hadoop, Spark, Hive.

Data Visualization: Python (matplotlib, plotly, seaborn), R (ggplot, plotly), Tableau.

Database Management Systems: MySQL, Oracle, MongoDB.

Machine Learning and Data Analysis: Python (pandas, scikit-learn, tensorflow, pytorch).