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, and more. Rice D2K data science consultant. TA for COMP 680: Statistics.

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.
- Activities: intramural soccer, math club, texas advanced computing center volunteer.

Experience

Rice University — Houston, TX
Research Assistant (Computer Science Department) — Summer 2020–Spring 2021
Member of Ray Simar's project on analyzing covid data (hsmap.rice.edu) based on seasonal patterns.

- Created the 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.

Cirrus Logic — Austin, TX
Data Science Intern (Product Engineering Team) — Summer 2018
Semiconductor company that designs audio products for companies like Apple and Samsung.

- Developed a web app (using R, Shiny), from conception to completion, to analyze silicon wafer data and help engineers visually monitor false holds/false releases rates based on wafer bin limits.
- Consulted with product engineers, database administrators, and statisticians to design UI.
- Improved the speed of markov chain monte carlo algorithm greatly by using Rcpp and C++.
- Wrote complex SQL queries to retrieve silicon wafer data from Oracle database.
- Analyzed silicon wafer data using Python and Excel.

SAS Institute — Cary, NC
Software Developer Intern (Visual Analytics Team) — 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.
- Presented poster of summer work at intern expo to other interns and company leaders.
- Participated in A/B testing to help improve product usability.
- Collaborated with software developers, testers, managers, ux designers, and technical writers.

The University of Texas at Austin — Austin, TX
Research Assistant (Linguistics Department) — Spring 2017
Member of a research group that focused on analyzing mixed language documents.

- Refactored Python code to improve maintainability.
- Increased the time to process large corpora significantly by using Python multiprocessing.
- Created visualizations and plots in R.

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.