# MICHELLE LEE

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Ambitious Data Scientist looking to transition into **Software Engineering** roles while also pursuing a B.S. in **Computer Science** on the side. Capable of object-oriented design, algorithmic problem-solving, and machine learning; proficient in Java and Python.

## EDUCATION & RELEVANT COURSES

**University of California, Santa Barbara** — **September 2013 - June 2016**

**B.S. Financial Math & Statistics**

- Intro to Computer Science, Problem Solving in Computer Science, R Programming, SAS Programming, Fourier Series

**University of California, Berkeley**

- Data Structures in Java (CS 61B), Discrete Math (CS 70)

**Stanford (Coursera) | Duke (Coursera) | Harvard Business School x Uber | Udemy**

- Machine Learning, Algorithms Specialization, Java Programming, Object Oriented Programming in Java, Executive Leadership, Python for Data Science & Machine Learning

## PROJECTS

**Speech (Recognition) Assistant | Python (Ongoing)**

- Building a virtual assistant app that uses speech recognition to listen, answer questions, and perform various tasks
- Currently working on implementing other languages and utilizing several APIs for tools such as weather, music, etc
- Looking to use Natural Language Processing to experiment with sentiment analysis

**Shortest Pathfinding Visualizer | Java**

- Built an A* Pathfinding visualizer which efficiently finds the shortest path (if one exists) between two points
- Implemented a min heap to perform Best First Search using heuristic cost functions
- Created GUI/animation with Swing and AWT, and experimented with other extra visual effects

**Real Estate Valuation Project | Python**

- Cleaned, explored, and analyzed a real estate dataset to assess relationships of house features with market price of houses
- Implemented correlation heatmaps, scatter/boxplots, and more to analyze relationships and identify multicollinearity

## EXPERIENCE

**Tecolote Research Inc. | Data Scientist** — **November 2019 – May 2020**

- Debugged and updated our online data science and machine learning platform, creating tools for multivariate exploration such as interactive correlation/scatterplot matrices, density-based clustering, as well as various app improvements
- Performed PCA (principal component analysis) and regression techniques in R to create a new model for space vehicle schedules (for DoD contractors) that outperformed the existing model
- Cleaned, explored, analyzed, and visualized satellite data with R and Python, using statistical techniques such as data transformations, t-testing, data normalization, and many others

**American Savings Bank | Sales Performance Analyst** — **April 2018 – December 2018**

- Built SQL scripts for Business Banking growth and production to efficiently track over $240 million
- Provided in-depth performance insights/trends for Business Banking & Home Loans, driving growth and reconstruction

**Uber Technologies Inc – Xchange Leasing | Business Support Manager for Data Analytics** — **July 2017 – December 2017**

- Built the server-side and UI of our Shiny App to provide real-time updates and visualizations for vehicle metrics
- Automated vehicle tracking in R to detect patterns and identify marketing opportunities as well as potential issues
- Validated company-wide data migration using SQL to check for compromised data and discrepancies

**Uber Technologies Inc – Xchange Leasing | Data Analyst (Insurance)** — **November 2016 – July 2017**

- Took initiative to learn MAQL (query language for Zendesk) and integrated new analytics dashboards for the entire office
- Assisted in optimizing algorithms and debugging code in Python for ad hoc requests

## SKILLS

**Programming Languages:** Java, Python, R, SQL, Matlab, SAS, HTML/CSS, JavaScript
**Tools:** Pandas, Numpy, Matplotlib, Tensorflow, Keras, Scikit-Learn, SciPy, Seaborn; ggplot, Shiny, reshape2, dplyr