




# IRENE (ZIYING) ZHANG

 [github.com/zziying](https://github.com/zziying)  [linkedin.com/in/zzyirene](https://www.linkedin.com/in/zzyirene)  [irene61297@yahoo.com](mailto:irene61297@yahoo.com)

## EDUCATION

---

### University of Illinois at Urbana-Champaign

Aug 2020 - Dec 2021

*M.S in Computer Science*

### University of California, Berkeley

Aug 2018 - May 2020

*B.A in Applied Statistic (GPA: 3.62)*

Relevant Coursework: Machine Learning, Time Series Analysis, Concepts of Statistic & Probability, Linear Modeling, Data Structure & Algorithms, Principles and Techniques of Data Science

## TECHNICAL SKILLS

---

<b>Programming:</b>	Java, R, Python, JavaScript, SQL
<b>Software:</b>	TensorFlow, AWS, Sci-kit Learn, Open CV, Pandas, Numpy, Seaborn, Matplotlib, PyTorch
<b>Analytics:</b>	Time Series, Inference and Regression, Feature Engineer, Regularization and Cross-validation
<b>Machine Learning:</b>	Random Forest, K-nearest Neighbors, NLP, SVM, Neural Network, Cluster Analysis

## WORK EXPERIENCE

---

### Work At Home Vintage Experts LLC

Jan 2020 - May 2020

*Data Scientist*

- Built a predictive classifier that can predict an incoming remote employee's success.
- Used daily updated applicant's employment data from a relational database to carry out the data analysis and modeling in python.
- Extracted text data from 1000+ existing employees' emails using NLP to analyze the partnership between company and employees. Used Word Cloud for visualization.

### City College of San Francisco

Jan 2017 - Dec 2017

*Computer Science Tutor*

- Provided one-on-one tutoring sessions to guide students in solving challenging data structure problems (Tree, LinkedList, etc.) for 3 hours a week.

## PROJECTS (ALL AVAILABLE IN GITHUB)

---

### COVID-19 transmission rate Analysis

- Used each U.S. county's health resources and population information to identify factors that appear to impact the confirmed cases growth rate.
- Predicted COVID-19 confirmed cases growth rate of a county in a certain amount of time.
- Performed principle component analysis to reduce dimensions and increased accuracy by 5%.

### Spam/Ham Email Classifier

- Built a logistic regression classifier to detect spam emails with 95% accuracy score.
- Visualized the distribution of frequent words to differentiate ham and spam emails.
- Evaluated models' performance with confusion matrix and ROC curves.

### Malaria Diagnostic System

- Built a neural network to detect Malaria using images of blood cells and achieved 97% accuracy by implementing three convolution layers.

## CERTIFICATIONS

---

Neural Network and Deep Learning By deeplearning.ai in Coursera.org

- Topics Cover: Convolution Neural Network, Sequence Model, Hyper parameter Tuning, Regularization and Optimization.