

# Yuxuan Fan

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## EDUCATION

### UC SAN DIEGO

#### B.S. IN DATA SCIENCE

Sept 2018 - June 2022 (Expected)

La Jolla, CA

Thurgood Marshall College

Halcioğlu Data Science Institute

Provost Honor

Cum. GPA: 3.96 / 4.00

Major GPA: 3.98 / 4.00

## SKILLS

### LANGUAGE

Mandarin (Simplified Chinese) •

English • Korean

### PROGRAMMING LANGUAGE

Python • Java • SQL • JavaScript • HTML

• CSS • C++ • Scala

### LIBRARIES AND FRAMEWORKS

Scikit-learn • Pandas • Pytorch •

PostgreSQL • Google Firebase • Spark •

Flask • ReactJS • NodeJS • ExpressJS

## LINKS

Personal:// [yuxuan.fan](http://yuxuan.fan)

Github:// [991231](https://github.com/yxfan99)

LinkedIn:// [yxfan](https://www.linkedin.com/in/yxfan)

## COURSEWORK

### UNDERGRADUATE

Data Structure and Algorithm

Object-oriented Programming

Machine Learning

Data Mining

Database

Data Visualization

Deep Learning

Computer Vision

Natural Language Processing

## EXPERIENCE

### UC SAN DIEGO ACADEMIC TUTOR

September 2019 - Present • La Jolla, CA

- Tutored 3 courses (DSC 20/30/40B) that introduce programming in **Python** and **Java**, basic **data structure and algorithms**, and **machine learning** theories.
- **Designed 10+ programming assignments** on data structure applications and object-oriented programming.
- **Helped 300+ students** to understand course contents and debug code by **answering 1500+ student posts online** and hosting office hours.

### UCSD CHINESE COMPUTER COMMUNITY PROJECT MANAGER

September 2019 - Present • La Jolla, CA

- Managed a 10-person project that helps members to improve data analysis skills and gain real-world experience by participating in Kaggle competitions.
- Led study groups to learn **machine learning** and **deep learning** concepts every week, and hosted tutorials on **Scikit-learn** and **Pytorch**.
- Helped team members to build handwriting classifiers with **ResNet** variants and perform text sentiment extraction with **BERT** from scratch.

## PROJECTS

### SOCIAL CODING ARENA Code

- A web application that allows users to host customized coding contests, invite other users, and join public coding contests through the lobby.
- Designed product concepts and user flow, designed database schema and implemented database queries using **Google Firebase** (and a backup plan with **PostgreSQL**), and implemented the frontend of several pages with **ReactJS**.
- The prototype won a finalist award (7th/83) in Unicode SC+ Hackathon 2020. Expected to deploy the final product by the end of 2020.

### NEW YORK AIRBNB PRICE PREDICTION Code • Presentation

- A data mining project that predicts the price of New York Airbnb listings using their metadata, textual descriptions, and review scores.
- Implemented data pre-processing pipeline with **Pandas** and **Scikit-learn**, and fitted a single **Light GBM** model. Won 1st/125 in UCSD DSC 190 A00 Data Mining Challenge with a public RMSE score of 76.37.

### IMAGE AUGMENTATION DEMO Website • Code

- A web application that provides an interface to perform image augmentations and inspect augmented images in real-time.
- Implemented frontend with **ReactJS** and **Bootstrap 4**, implemented augmentation API with **Flask**, and deployed the application with **Heroku**.

### INTELLIBEAR Code

- A dashboard-like web application that provides sales data management, forecasting and analytics for restaurants.
- Implemented a time-series data processing pipeline that preprocess the input data with **Pandas** and make predictions with stacked **Light GBM** and **LSTM** models. Implemented dashboard page prototype with **vanilla HTML/CSS/JS**.

### DATA VISUALIZATION: EVOLUTION OF TIKTOK Website • Code

- An interactive and responsive data visualization for TikTok's growth statistics implemented with **vanilla HTML/CSS** and **HighCharts** (a charting library).