

Yining Wang

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EDUCATION:

University of California, Los Angeles

Bachelor of Science in Computer Science, Minor in Statistics, Tech Breadth in Mathematics

June 2021, GPA: 3.6

TECHNICAL SKILLS:

Proficient: C++, C

Intermediate: Python, Java, PostgreSQL, R, HTML, Flask, Django, Git, Linux, Android (Java), Algorithms and Complexity, Machine Learning, Operating System, Data Mining, Artificial Intelligence, Network Fundamentals, Arduino, Beaglebone

EXPERIENCE:

DevOps Staff, UCLA Student Media

October 2019- present

- Implemented a complete messaging system and application statistics report page for UCLA Student Media job application website with **Django** and **PostgreSQL** as database. Link: <https://apply.uclastudentmedia.com/>
- Website is used by all UCLA publications and relevant departments and has around 30000 requests every year. The features I developed will save a manager 20 minutes for every single application

Software Engineer Intern, Tunec Technology (<http://www.tunec.com/>)

August 2019- September 2019

- Implemented a facial recognition program embedded in a server cabinet access control system with **Python**
- Built a data pipeline to take frames from a webcam at a dynamic pace using **OpenCV** and used `face_recognition` to locate faces and perform facial validation
- Incorporated **multiprocessing** to boost the performance by 4 times and employed **PyQT** to architect an interface
- Project is part of a system that is going to be sold all around China

PROJECTS: (Available on my GitHub: <https://github.com/kyswn>)

Router

Dec 2019

- Used **C++** to implement a simple router on top of Mininet with a static routing table. It receives ethernet frames and processes them by forwarding them or creating new frames
- Implemented and maintained an ARP request table and an ARP entry table

Reddit comments political sentiment analysis

May 2019

- Analyze the sentiments towards President Trump on r/politics with heavy use of **PostgreSQL**
- Passed the data in JSON file to **Spark**, cleaned the data and returned them in unigram, bigram, and trigram form, and then used **PostgreSQL** to employ feature engineering
- Trained a **logistic regression** sentiment classifier using **MLlib** package on labeled data and employed the model to analyze the sentiments towards Trump in r/politics, in terms of state, time, and score, and created plots and maps accordingly using **Matplotlib**

"TuneSearch"

April 2019

- Lead a project to create a search engine for song lyrics using **Flask** and **PostgreSQL** as database
- Enabled complicated custom search options. Sorted the result by TF-IDF value and enabled pagination

Movie Rating Prediction

February 2019

- Lead a **Machine Learning** project to create a **Python** program predicting how individuals would rate movies based on how they rate other movies and different attributes of the movies, with data size being ten thousand users and 130 thousand movies
- Used **Scikit-learn** to employ PCA to reduce the dimension of the movie attributes matrix, and then **K-means** to cluster the movies and the users with **10-Fold Cross Validation**, and then made some new attributes and finally trained a **linear regression** model
- Achieved a 0.91 root mean squared error and placed 5th place in Kaggle competition

"Nachenblaster"

January 2018

- Created a 2-D horizontal shoot 'em up game using **C++** with **OOP** principles
- Used **polymorphism** to create a complicated enemy hierarchy system featuring different moving patterns, looks, duration, and weapons, a weapon hierarchy system featuring different looks, moving patterns, and damage, and a power-up hierarchy system featuring different functions and looks
- Implemented different levels of difficulty

HONORS AND ACTIVITIES:

UCLA UPE (Upsilon Pi Epsilon, Computer Science Honor Society)

2018 Fall-present

UCLA Dragon Boat Team (First Division Club Sport)

2018 Fall-present

Computer Science Classes Tutor, UCLA UPE

2018 Fall-2019 Spring

Captain, Varsity Soccer, Nanjing Foreign Languages School

2014 Fall-2017 Summer

Third Prize, Shing-Tung Yau Math Competition in Applied Math

Oct 2016

- Built a **linear regression** model on education resources allocation with MATLAB and finished a research paper