

Yufan Wang

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EDUCATION

Queen Mary University of London (QMUL)
Bachelor of Science (Engineering) with Honours

London, United Kingdom
September 2016 - June 2020

- First Class Honours
- Core Modules: Intro Java Programming (97), Digital Circuit Design (94), Networks and Protocols (92), Middleware (91), Cloud Computing (90), etc.

Beijing University of Posts and Telecommunications (BUPT)
Dual Bachelor's Degree in Internet of Things Engineering

Beijing, China
September 2016 - June 2020

- China "211 Project"
- Average Score: 89.75/100
- Ranking: 3/183
- Core Modules: Discrete Techniques for Programming (99), Probability Theory and Stochastic Statistics (98), Advanced Mathematics I (97), Fieldwork (96), Data Structures (93), Operations Research (92), Operating System (89), Linear Algebra (87), Information Processing Technology on Internet of Things (95), etc.

PROFESSIONAL EXPERIENCE

Kwai Inc. (Kuaishou); Commercialisation Department; Beijing, China

June 2020 – Current

Big Data Intern

- Optimize behavior-interest oriented algorithms and user profiling for advertisement in industries of education, maternal & child, real estate and game.
- Work in data management platform (DMP) team and responsible for DMP back-end development as well as target tool platform "Kwai Ads" for advertisers.
- Perform user data analysis and external data label quality assessment with Hive SQL, Spark and Python and data visualization with Tableau.

Cardinal Operations; Department of Algorithm; Beijing, China

September 2019 - January 2020

Data & Algorithm Intern

- Performed data pre-processing with Pandas, NumPy and Matplotlib.
- Generated sales forecast with Python. Created machine learning models and time series analysis and simulated replenishment process to customize optimal replenishment strategy for enterprise users including Xiaomi and Toyota.
- Participated in the algorithm team, completed numerical experiments that is part of internal Python API "Core-forecast 2.0" with functions including data pre-processing, feature generation, goods classification, forecast and evaluation.

Renmin University of China; School of Statistics; Beijing, China

March 2019 - August 2019

Teaching Assistant

- Helped with course preparation for CNN and Reinforcement Learning which contained materials such as basic literature review, case collection and code design.
- Developed presentations for students and held seminars once every two weeks.
- As a co-author, wrote chapters of a new textbook for the course instructor.

RESEARCH

Optic Cup and Disc Segmentation Based on Stereoscopic Fundus Images for Glaucoma Diagnosis, Renmin University of China

March 2019 - March 2020

Independent Researcher

- Used Res-UNet to obtain optic cup and disc images from stereoscopic fundus images as benchmark. Tried basic Convolutional Neural Network (CNN) models (ResNet, VGG, Inception) combined with LSTM.
- Modified DAVA-Net (from 2019 CVPR designed for stereoscopic images) to segment optic cup and disc images with Pytorch. The final Intersection over Union (IoU) score reached 0.79.

Drone Performance-Aided Design and Control System, BUPT

June 2018 - May 2019

Algorithm Designer

- Designed and optimized flight algorithms of drone formation using MATLAB to adopt the distributed formation, realizing the master-slave flight mode as well as the formation convergence with a discrete controller.
- Generated the simulation interfaces by identifying user's input graphics to control the flight of the drone.

Acquisition of GPS Information by Using STM32, Tsinghua University

July 2018 - October 2018

Independent Researcher

- Used the HAL library to obtain GPS information based on STM32L476t.

PROJECTS (SELECTION)

Virtual Video Capturing Studio Application for Live Mobile Video

November 2019 - May 2020

Independent Developer

- Built real-time background replacement Android selfie application applied for both studio setting and complex background.
- Designed and trained background replacement model Portrait-Net (Encoder: Mobile-Net, Decoder: Residual Blocks) with Pytorch and converted it into TensorFlow Lite form. The final average frame rate on the phone achieved 15 frames per second.
- Added extra functions including video bokeh, applying filters, style transfer, taking photos, recording videos and downloading background materials from cloud.

Hardware & Software Implementation of Campus Scooter Sharing System

March 2019 - June 2019

Project Leader

- Based on the 8051 development board, used LED, keypad, buzzer and LCD components to simulate login, borrowing, and returning functions in actual application scenarios.
- Implemented GUI with JAVA to provide users and managers with the functions like login, borrowing and returning a scooter, paying the fine, managing information and so on.

Student Dormitory Management and Inquiry System

November 2018 - December 2018

Project Leader

- Led a team to establish student and dormitory information databases in MySQL and users can query information from Java GUI.
- Responsible for conducting JDBC, writing SQL queries and setting up GUI with JAVA.

Campus Second-Hand Trading Platform

March 2018 - June 2018

Project Leader

- Led a team to build a website for the campus's second-hand trading. Used functions including user registration, log-in, group chat, publication of products, organization of collections, and purchases.
- Responsible for front-end development with HTML, CSS, and JavaScript.

EXTRACURRICULAR AND VOLUNTEER ACTIVITIES

Coursera Online Course

September 2019 - Current

- Received certificate of courses from various universities.
- Stanford University - "Machine Learning"
- Duke University - "Introduction to Probability and Data with R" and "Inferential Statistics"
- University of Michigan - "Introduction to Data Science in Python".
- Imperial College London - "Introduction to Statistics & Data Analysis in Public Health" and "Linear Regression in R for Public Health".

Volunteer & Organizer; Beijing, China

September 2016 - June 2020

- Joined 20 volunteer activities, serving 1000+ individuals concluding with 409 hours of volunteer work.
- Led 40+ students to plan, organize and execute 10+ large-scale activities.

HONORS AND SCHOLARSHIPS

Queen Mary University of London Undergraduate College Prize 2020 (1%)	2020
Excellent Graduate of Beijing University of Posts and Telecommunications (6%)	2020
"Honorable Mention" in COMAP's Mathematical Contest in Modeling	2018 & 2019
First-Class Scholarship (3%)	2019
Outstanding Student of Beijing (0.5%)	2018
National Scholarship (1%)	2017 & 2018
Excellent Student of Beijing University of Posts and Telecommunications (6%)	2017 & 2019
2017-2018 Excellent Student Cadre of Beijing University of Posts and Telecommunications (3%)	2018

PROFESSIONAL EXPERIENCE

Technical Skills

- High level of proficiency in Python, C, JAVA, SQL and LATEX programming
- Experience with data processing software (Hadoop & Spark) and algorithm (MapReduce).
- Foundational skills in MATLAB, HTML, R, Scala and Embedded C
- Understanding of STM32 development board and drone

Language Skills

- Fluent in English, native in Chinese, basic understanding of German
- TOEFL: 106 (R29 + L29 + S23 + W25) GRE: 324 + AW3.5

REFERENCE

- Personal website: <https://yufanwangyuki.github.io/>
- Graduation project link: https://github.com/YufanWangYuki/Android_CU.git