Yufan Wang

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EDUCATION

Queen Mary University of London (QMUL)   **London, United Kingdom**
Bachelor of Science (Engineering) with Honours   *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)   **Beijing, China**
Dual Bachelor's Degree in Internet of Things Engineering   *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".

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