#### Yufan WANG

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#### **EDUCATION**

#### **Beijing University of Posts and Telecommunications (BUPT)**

Beijing, China

Dual Bachelor's degree in Internet of Things Engineering

Jun. 2020 (Expected)

Joint Undergraduate Program (taught in English) with Queen Mary University of London.

London, UK

**GPA**: 89.18/100 (WES: 3.81/4.0) **Ranking**: 3/192

**Relevant Courses**: Discrete Techniques for Computing, Operations Research, Probability Theory & Stochastic Processes, Advanced Mathematics, Data Structures, Database, Introduction of Internet of Things, Linear Algebra, Information Processing Technology on Internet of Things, Operating System, C Programming, and Java

#### RESEARCH

# Glaucoma Diagnosis Based on Stereoscopic Fundus Images with Deep Learning Methods, *Renmin University of China*Beijing, China

Independent Researcher

Mar. 2019 – Present

- Used U-Net to obtain optic disc and cup images from stereoscopic fundus images as benchmark and to sift and extract local features.
- Modify other models like basic Convolutional Neural Network (CNN) models (ResNet, VGG, Inception) combined with LSTM and stereo models like DAVA-Net based on stereoscopic fundus images to identify the better segmentation model with Python *Pytorch*.

### Drone Performance-Aided Design and Control System, BUPT

Beijing, China

Algorithm Designer

Jun. 2018 – May 2019

- 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

Beijing, China

#### Independent Researcher

Jul. - Oct. 2018

- Used the *HAL* library to obtain GPS information and utilized STM32L476 to transfer the data to the port.

#### **PROJECTS**

# **Project Leader, Hardware & Software Implementation** of Campus Scooter Sharing System, Beijing, China

Mar. – Jun. 2019

- 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.

#### Project Leader, Student Dormitory Management and Inquiry System, Beijing, China

Nov. - Dec. 2018

- Established a database of student information and dormitory rooms of 10 in *MySQL* and used *SQL* to realize the information query function.
- Conducted *JDBC*, and displayed query results in GUI by *JAVA*.

#### Project Leader, Campus Second-Hand Trading Platform, Beijing, China

Mar. - Jun. 2018

- Developed a website with *HTML*, *CSS*, and *JavaScript* to realize functions such as user registration, log-in, group chat, publication of products, organization of collections, and purchases.

#### Developer, GUI Design for an Evaluating System of Math Course, Beijing, China

May - Jun. 2018

- Implemented GUI with JAVA to provide students with the functions of problem setting, error checking and error recording.

#### Programmer, Online Supermarket Management System, Beijing, China

- Designed the manager-side element of the system in *C Language* enabling users to purchase, browse and compare goods and prices, and administrators to manage goods.

#### **WORK EXPERIENCE**

## Cardinal Operations Algorithm Intern

Beijing China

Oct.- Dec. 2016

Sep. 2019 – Present

- Pre-process the commercial data like sales, inventory, and replenishment by data merging, renaming, grouping, data traces, date completion and calculation of statistics with *Pandas* and *NumPy*.
- Work with Algorithm Development Group to customize the optimal replenishment strategy for the Enterprise customers (e.g. Xiaomi) to make more accurate purchasing and replenishment decisions.
- Analyze the previous sales data and generate the forecast sales, then simulate the sales process to optimize the replenishment algorithm.
- Participated in the development of internal API 'Coforecast 2.0' with the function of feature generation, forecast, goods classification, forecast model generation and evaluation.

#### "Python and Financial Computing" Online Research Project (GEC Academy)

Beijing China

Teaching Assistant

Oct. 2019 - Dec. 2019

- Held tutorial session, solved students' programing problems, gave detailed answers towards questions about finance, completed reference solutions for the assignments, collected and corrected the homework.

# "Deep Learning" Course Preparation and Manuscript Writing (Renmin University of China) Beijing, China Teaching Assistant Mar. 2019 – Aug. 2019

- Helped with course preparation of *CNN* and *Reinforcement Learning*, such as basic literature review, case collection and code design, developed presentation for students and held seminars once every two weeks.
- Co-authored chapters of a new textbook of the course instructor.

#### **EXTRACURRICULAR ACTIVITIES**

#### **Coursera Online Course**

Sep. 2019 - Present

- Join in the courses "Machine Learning" by Stanford University and "Introduction to Data Science in Python" by University of Michigan.
- Until now, got full marks in all tests and assignments of both courses and have got the certificate of "Introduction to Data Science in Python" with another certificate expected in December.

#### Volunteer activities at BUPT

Beijing, China

Volunteer

Sep. 2016 - Present

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

#### HONORS AND SCHOLARSHIPS

"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%)	2018 & 2017
Excellent Student of BUPT (6%)	2017 & 2019
2017-2018 Excellent Student Cadre of BUPT (3%)	2018

#### **SKILLS**

Technical Skills: High level of proficiency in Python, C, JAVA, SQL and LATEX programming

Foundational skills in MATLAB, HTML and Embedded C

Good understanding of STM32 development board and drone

Language Skills: English (Fluent), Chinese (Native), German (Basic)

**TOEFL**: 106 (R29 + L29 + S23 + W25) **GRE:** 324 + AW3.5