

# Yufan WANG

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## EDUCATION

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**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

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**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

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**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.

- 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

Beijing China

#### Algorithm Intern

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, Toyota) 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' programming 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.
- Got full marks in all tests and assignments of both courses and have already got the certificate of “Introduction to Data Science in Python” and “Machine Learning”.

### 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

<b>Technical Skills:</b>	High level of proficiency in <b>Python, C, JAVA, SQL</b> and <b>LATEX</b> programming Foundational skills in <b>MATLAB, HTML</b> and <b>Embedded C</b> Good understanding of <b>STM32</b> development board and drone
<b>Language Skills:</b>	English (Fluent), Chinese (Native), German (Basic) <b>TOEFL:</b> 106 (R29 + L29 + S23 + W25) <b>GRE:</b> 324 + AW3.5