

# DEWEI LIU

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## Objective

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A self-motivated and open-minded Computer Science student with an international perspective looking for a graduate engineer position in the UK, where I can apply my outstanding technical and problem-solving skills in a diverse team.

## Education

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- 2017 – Current**      **BEng Computer Science**      **Queen’s University Belfast, UK**  
**First-class honours degree** expected in June 2020 (current grade average 83%)  
**Degree-Plus accreditation** awarded for extra-curricular development and achievements  
**Professional Erasmus Placement.** Software Engineer at Ericsson in Ireland  
**Course Representative.** Bridge between students and lecturers. Gather module feedback from students. Attend Student Union meetings to improve academic provision and course development  
**Student Assistant.** Help organise university events and staff in the events as a student helper. Member of International Buddy Scheme to assist international students in their enrollment & orientation  
**Modules:** Data Structures & Algorithms, Cloud Computing, Machine Learning, AI & Data Analytics, Network Security, Information Modelling & SQL, Android Development, Theory of Computation  
**Dissertation Project:** Deep Learning for the Deployment of Mobile Apps (keywords: fog/edge computing, dynamic binding, autonomic control loop, predictive model, mobile backend, IoT)
- 2015 - 2017**      **BEng Computer Science**      **Guangdong University of Technology, China**  
**Grade Average:** 84% (top 2 in my class)  
**Modules:** C, C++, Java Programming, Calculus, Data Structures, Algorithm Analysis, Linear Algebra, Advanced Mathematics, Discrete Mathematics, Networking, System Design & Organisation  
**Class monitor.** Organised inter-class events. Held class elections. Monitored classmates’ learning progress and helped them with their difficulties in study and living.  
**Vice-president** in Canteen Monitoring Commission. Organised food security checks in university canteens. Received food quality complaints from students. Advertised canteen jobs to students. The degree will be awarded when the degree from Queen’s University Belfast has been awarded
- 2012 - 2015**      **High School Diploma in Science**      **Wuzhou Senior High School, China**  
**Subjects:** Mathematics - A, Physics - A, Biology - A, IT - A, Chemistry - B, English - B  
**Class monitor.** The school ranking of my class improved from 15<sup>th</sup> to 6<sup>th</sup> out of 16 classes during my two-year monitoring  
**Class Representative of Mathematics.** Presented mathematics exams & homework solutions to the class. Taught the class during teacher’s leave because of my outstanding mathematics knowledge  
**Second prize award** in Provincial Mathematics Competition representing the school

## Skills

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**Programming:** Java, Python, C/C++, C#, SQL, Bash, JavaScript, YAML, R, Matlab & adaptive to learn any new programming language  
**Technical Skills:** AI, machine/deep learning, neural network, IoT, data analysis, edge/fog computing, virtual machines, containers, code review, Agile, web app frameworks  
**Technologies:** Azure, AWS, Google Cloud, Red Hat Linux, Tensorflow, Web Frameworks, Node.js, Terraform, Bootstrap, DOT NET, RPM, Kubernetes, MS Office, Jira, Confluence  
**Technical Strengths:** algorithms, data structures, mathematics, debugging, coding quality  
**Other Strengths:** problem-solving, leadership, teamwork, adaptive in new environments

## *Experiences*

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### **September 2019 – Current    Teaching Assistant    Queen’s University Belfast, UK**

- Technical demonstrator in modules Data Structure, Database, Algorithm and Android Development
- Assist Computer Science students in their assignments and practical classes
- Invigilate module exams. Mark assessments and provide valuable feedback

### **June 2019 - July 2019            Research Intern            Institute of Electronics, Communications & IT, UK**

- Studied an unpublished cryptography protocol Privacy-preserving Location-based Service System (PLSS) which provided location services without users revealing their actual locations
- Simplified mathematical formulas of PLSS based on Zero-knowledge proof & Schnorr signature
- Implemented PLSS using C & Java on Maven servers and Android phones
- The implementation verified the protocol and provided experimental statics

### **July 2018 – March 2019            Software Engineer - Placement            Ericsson, Ireland**

- Solely implemented the initial concept version of Log Collection Service (LCS), which was highly recognised by the department manager and got funded by the department
- Led a team of four to implement a deliverable version of LCS using Python, YAML, Red Hat Linux
- Presented LCS seven times to teams worldwide and received high popularity, which shortened the time from 1 hour to 10 minutes for customers producing issue reports
- Analysed the trends of Customer Support Requests (CSR) using R and Excel
- Demonstrated daily CSR progress to the Customer Support department and helped the manager improve the department efficiency
- Gained valuable commercial and technical experiences and developed strong communication, leadership skills and job effectiveness

### **2012 – Current                            Deputy Manager                            Restaurant, China**

- Part-time work in my parent-owned restaurant in China for seven years
- Developed strong business skills, including problem-solving, marketing and leadership
- Manage accounting records. Monitor the services, food quality, cleanliness and employees
- Investigate and predict the trends and customer needs in the restaurant market to increase popularity and decrease resource costs, and our profit doubled in the past year
- Deal with issues from the city council, including security inspections, commercial license renewals
- Helped restaurant relocation and managed the renovation

## *Projects*

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### **Best Friends App (AI Chat Bot Web App)**

- Best Friends (BF) web app developed by my friend and me for the interest of cloud service and AI
- BF consists of four servers hosted on Azure, including Web app, SQL, Bot Service, QnAMaker
- BF servers integrate and assist the central Python Django server in providing chatting service to users

### **Paperborne (Android Card Game)**

- Led a team of five to develop the Android app using Java & XML in Agile for my university module
- Solely implemented 50% of the code, including building an AI engine using complex algorithms (e.g. Huffman coding, Dijkstra's algorithm, Dynamic programming), which was marked 82%

## *Additional Details*

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- Languages: English, Mandarin Chinese, Cantonese
- Member of a local charity in China which supplies food and basic needs to poor elders
- Completed two international Marathon racings in the last three years
- Champion of University Table Tennis Competition
- References are available upon request