Bowen Zhang

Major: Software Engineering

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EDUCATION

•**Beijing University of Technology**   Sep 2020 - Jul 2024

Bachelor of Science in Software Engineering   GPA: 3.55/4.2

Core Courses: *Software Systems Architecture, Software Proj Management, Software Methodology, Computer Graphics*

Courses In Progress: *Design Pattern, Privacy & Security*

•**University College Dublin**   Sep 2020 - Jul 2024

Bachelor of Science in Software Engineering   GPA: 3.55/4.2

Core Courses: *Information Retrieval, Mobile Computing, Web Development, System Des & Verification Object Oriented Programming, Data Structs & Algs, Operating System, Distributed System, Computer Network*

Courses In Progress: *Machine Learning, Performance of Comp System, Augmented & Virl Reality*

INTERNSHIP EXPERIENCE

•**Beijing Dajia Internet Information Technology Co., Ltd. (Kuaishou Group)**   Jun 2023 - Sep 2023

Server Development Intern   Beijing

– Mainly responsible for the development of RTC operation and maintenance platform and business development of multidepartmental coordination.
– Gained extensive experience in developing and using a variety of databases such as Redis, ClickHouse, and MySQL.
– Acquired proficiency in several big data and high concurrency technology stacks including the use of the Kafka messaging queue.
– Improved system query efficiency by 20% through database migration and query performance optimization

•**Perfect World**   Jan 2022 - Feb 2022

Natural Language Processing(NLP) Intern   Beijing

– Engaged in data cleaning and processing for training datasets, acquired knowledge of classical algorithms in Natural Language Processing (NLP)
– Gained a fundamental understanding of deep learning-related algorithms and their software implementations
– Studied and implemented basic artificial neural networks including CNN (Convolutional Neural Network) and LSTM (Long ShortTerm Memory), fostering further learning and application of PyTorch

PERSONAL PROJECTS

•**KuaiShou RTC Operation and Maintenance(O&M) Platform**   Jun 2023 - Sep 2023

Developer

– Used springboot(Java) as the development framework, MyBatis and MyBatis Plus as the data persistence framework and involved mySql and Clickhouse as the database. The kafka message queueing and redis caching are also utilized.
– Dealt with the live streaming-related data and implemented several CRUD interfaces.
– Implemented the studio reservation system under multi-department coordination
– Contributed to the improvement of system querying efficiency

•**BM25-based Searching Engine**   Feb 2023 - Jul 2023

Developer

– Used python to implement BM25 model and evaluation metrics including Precision, Recall,Precision@10, R-Precision, MAP, Bpref and NDCG
– Applied stemming and stopwords removal to deal with the original text
– Prepared index and precalculated BM25 score in advance to achieve higher query efficiency
– Provided automatic evaluation and interaction using console

•**Tourism Portal Design**   Feb 2023 - Jul 2023

Developer

- Used springboot(Java) as the development framework, thymeleaf as the template engine, Spring JPA as the data persistence framework and other auxiliary plug-ins and MySQL as the database. The project is deployed using docker
- Act as the team leader, involved in the design and implementation of the portal, such as primary login and registration functions, the addition, deletion, and modification of attraction information.
- implemented comment posting and comment sentiment analysis using neural networks as well as the design of algorithms to influence the scores of scenic spots.

•School-based Delivery Platform **Sep 2022 - Jan 2023**
Developer

- Used flask(Python) as the development framework, bootstrap as the front-end framework and SQLite as the lightweight database storage
- Designed an oncampus courier flash delivery platform that helps students with timesensitive needs, providing functions such as selecting products, placing orders, and checking order status
- Served as frontend developer, responsible for all the front-end design and code implementation and code integration

•Word memorization software **Feb 2022 - Jun 2022**
Team Leader

- Created the prototype diagram of the software with Figma
- Developed in Android studio, using the concept of material design and Java as the programming language while applying the agile development model
- Responsible for the overall project progress control and coding, which mainly realized the development of the modules of word memorization, level test, login and registration, and Chinese and English translation.

•Android Easy Notebook Development **Sep 2022 - Jan 2023**
Developer

- Built the multifunctional notebook with Java on Android Studio
- Operated material design and waterfall layout, adapted asynchronous and multi-threading programming and in the search function
- Prevented loading lag time with multithreading

Technical Skills and Interests

Languages: Chinese(Native), English(Proficient)
Developer Languages: Java, Python, Javascript
Frameworks: Springboot, Spring MVC, Flask
Cloud/Databases: MySQL, SQLite Redis, ClickHouse, MyBatis
Areas of Interest: Guitar

Teaching Experience

•Beijing University of Technology **Sep 2023 - Present**
Teaching Assistant of Intro to Program Construction I

•Tutor **Jan 2021 - Present**
Teaching English, Mathematics, and Computer Science Introduction to pupils

Achievements

Comprehensive Academic Scholarship	**Sep 2023**
Scholarship of Outstanding Academic Performance in English	**Sep 2023**
Second Prize of 2021 National "FLTRP·ETIC Cup" English Vocabulary Contest	**Apr 2023**
Scholarship of Outstanding Academic Performance	**Sep 2022**
Scholarship of Outstanding Academic Performance in English	**Sep 2022**
Comprehensive Academic Scholarship	**May 2022**
Successful Participant in MCM/ICM	**Feb 2022**
Excellent Student Leader of Beijing University of Technology	**Sep 2021**