Zenghuan Wang

✉ w905840774@gmail.com 📞 7444755339

🔗 wzhnbsixsixsix.github.io   in zenghuan-wang   ⊙ wzhnbsixsixsix

Education

Sep 2022 – Jun 2024	**Guangdong University of Technology**	**Bachelor's Degree**
	Computer Science and Technology	
Sep 2024 – Present	**University of Exeter, UK**	**Bachelor's Degree**
	Computer Science	

Project Experience

Local Discovery App - Backend Development   *Dianping* ☒

Overview: A distributed Dianping-style app backend service built on SpringBoot, supporting features like SMS login, reviews, coupon flash sales, daily check-ins, following system, and fan-based recommendations. Designed for a smooth user experience.

Tech Stack: SpringBoot, MyBatis-Plus, Redis, Nginx, JWT, WebSocket, MySQL, Redisson

- Multi-level caching: Implemented Redis + local cache for millisecond-level response and session sharing in a clustered environment.
- Used Bloom filters to intercept invalid queries and applied dynamic TTL strategies to prevent cache avalanche.
- Global unique ID generation via Redis with optimistic locking (CAS) to prevent overselling during flash sales.
- Flash sale optimization: Employed Redisson distributed locks and Lua scripts for atomic operations, used Redis Stream for ordered async queues.
- User behavior tracking: Utilized ZSet for like rankings, Set for managing follows, and BitMap for check-in features.

Sustainable Campus Web App   *SustainableCampus App* ☒

- **Overview:** An educational game platform developed using Django. Responsible for the frontend and backend of the account system (registration, login, email verification, password reset, etc.) and deployment using GitHub Actions and PythonAnywhere.
- **Tech Stack:** Django, HTML/CSS, Bootstrap, Git, GitHub Actions, PythonAnywhere, SQLite, CI/CD

Memory Matching Game   *Play Pairs* ☒

- **Overview:** A web-based interactive memory matching game using modern front-end technologies and PHP. Features include user system, leaderboard, and multiple game difficulty levels.
- **Tech Stack:** PHP, HTML5, CSS3, JavaScript, Bootstrap 5, Canvas Confetti (celebration effects)

Brain Tumor Classification Model (Keras-based)

- Built a CNN-based model using Keras to classify brain tumors in MRI images with 98.6% accuracy. Completed end-to-end training and evaluation, demonstrating engineering and documentation skills.

Professional Skills

Java: Proficient in Java syntax and collections. Familiar with JUC concurrent programming, including locking mechanisms, thread pool design, and ThreadLocal.

Frameworks: Skilled in Spring, SpringMVC, SpringBoot, MyBatis, and Django. Familiar with the SpringBoot execution process.

Databases: Proficient in MySQL database design, SQL optimization, and key database operations such as transactions, indexing, and locking.

Redis: Familiar with common Redis data structures and caching strategies (e.g., cache penetration, avalanche, breakdown). Experienced in designing multi-level caching, distributed locking with Redisson, Bloom filters, and Redis Stream queues to handle high concurrency and overselling.

Others: Proficient in HTML5, CSS3, JavaScript, and Bootstrap for frontend development. Skilled in using development tools like Cursor and Tongyi Lingma to improve coding efficiency. Experienced with GitHub for version control and collaboration.

Languages: English (IELTS 6.5); strong reading and communication skills.