JIAQI TANG

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EDUCATION

California State University, Fullerton, CA | M.S., Computer Science (GPA: 4.00) Aug 2022 – Dec 2024
Qingdao University, China | B.E., Digital Media Technology Sep 2018 – Jun 2022

TECHNICAL SKILLS

- **Programming Languages**: Java, Python, JavaScript, C/C++, HTML, CSS, SQL, BASH.
- **Frameworks**: Spring Boot, MyBatis-Plus, Django, Flask, REST API, Node.js, Express.js, React.js, Vue.js.
- **Tools**: MySQL, PostgreSQL, MongoDB, Redis, Docker, Kubernetes, Postman, JUnit, GitLab, AWS, Heroku.

PROFESSIONAL EXPERIENCE

Software Engineer Intern | Inspur Software Co., Ltd | China Jun 2023 – Aug 2023

- Enhanced a "ResourceFinder" Platform, connecting **1,000+** colleagues with resources and promoting user engagement, achieving an increase in user satisfaction and a 30% growth in monthly active users.
- Refined Late Check-In business logic with **Java** and **Spring MVC**, and addressed security vulnerabilities in private data, reducing point deduction errors and mitigating potential data exposure by 60%.
- Designed a Calendar Selector involving **Vue.js**, resolving display issues and elevating user experience.
- Resolved discrepancies in pageviews between the **MySQL** and **Elasticsearch** databases, accomplishing the synchronization rate with front-end display, revising data consistency and reliability.
- Integrated **CI/CD** pipelines with **Git** and **GitLab**, applied **Nginx** for deployment and load balancing, reducing the deployment time and increasing production branch consistency by 50%.
- Tested **API** interfaces with **MyBatis-Plus** and **Postman**, evaluated performance with **JMeter**, and executed extensive unit testing via **JUnit**, achieving a 25% optimization in API response times.

Research Assistant | Intelligent Computing Laboratory | CSU Fullerton Aug 2022 – May 2023

- Launched a 3D Print Monitor Web Application with hardware engineers, operating **Python** with **Django** on **Raspberry Pi**, achieving a 30% reduction in print failures and a 50% enhancement in operational efficiency.
- Engineered a Real-Time Vehicle Detection Algorithm leveraging **CNN** and **OpenCV**, by fine-tuning the **YOLOv7** model parameters, succeeding a 3× speed up in video read with only a 5% accuracy drop.
- Implemented a high-performance heatmap tracking algorithm in **C++** on the **Linux** platform, resulting in a remarkable 5× increase in FPS for real-time object tracking.

PROJECTS

Distributed High Availability Flash Sale System Jun 2023 – Sep 2023

- Developed a high-performance shopping system in **Java** with **Spring Boot**, scaled with high traffic volumes.
- Established data replication from **MySQL** to **Redis**, adopted **Lua Script** and cached essential goods information, decreasing data access latency and led to a reduction of 40% in the server response time.
- Promoted **RocketMQ** alongside cache warm-up and asynchronous process, increasing user traffic by 50%.
- Utilized **Sentinel** for flow control and rate limiting, managing a **multithreading** web server with over 600 QPS.

AWS Microservice Video-to-MP3 Converter System | [GitHub] Feb 2023 – May 2023

- Built a microservice system in **Python** with **Flask,** applied **Docker** and orchestrated it with **Kubernetes** on **K9s**.
- Enforced **JWT** secure authentication before uploading videos, streamlined microservice communication through **RabbitMQ**, and administered **MongoDB** for MP3's storage, boosting data retrieval speeds by 40%.
- Incorporated an **SMTP** Gmail notification service, enhancing microservices communication through timely alerts.
- Applied **AWS S3** and **AWS Lambda** for storage and process, achieving a 25% faster content approval process.

MERN Stack Food Hub Web Application | [GitHub] Sep 2022 – Dec 2022

- Led an **Agile** team of 5 using **Scrum** to develop a social media app focused on user post engagement.
- Designed frontend pagination with **React.js**, integrated a **REST API** architecture by **Express.js** within **Node.js**, and leveraged **MongoDB** for post management, resulting in a 20% faster page load time.
- Deployed client and server on **Heroku**, handling **API** requests with server response times optimized by 80%.
- Strengthened security by **Google OAuth2** authentication, lowering breaches and boosting user data protection.

PUBLICATIONS

ISQED 2023 | San Francisco, CA | [GitHub] | [PaperLink] 5 April 2023 – 7 April 2023

- Engineered the Locality-sensing Fast Neural Network, boosting real-time video processing by deploying a frame similarity detection algorithm, achieving a remarkable 2.5× decrease in data processing time.