Zhuang Tang

CONTACT

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https://tonytang0909-grl.github.io/Zhuangtang/

SUMMARY

Double master of computer science with strong programming, analytic and problem-solving skills. Has a wide range of project experience including web application development and machine learning, 4+ years of programming experience for building stable full stack project, strong knowledge of computer science, mathematics, and programming skills in Java, C++, Python, Database SQL, HTML, CSS, and Javascript.

TECHNICAL SKILLS

Languages: Java, Python, C/C++, SQL (Postgres/MySQL), Redis, Mongo, JavaScript, HTML/CSS
Frameworks: React/Vue, Node.js, SpringBoot, JUnit, WordPress, Element-UI, Express, Fast-API, Flutter/Dart
Developer Tools: Git, Docker, AWS, Google Cloud Platform, VS Code, Visual Studio, PyCharm, IntelliJ, Eclipse
Systems: Linux/Mac

EDUCATION

The University of Adelaide   Adelaide, Australia
Master of Computing and Innovation   *July. 2022 – July 2024*

University College Dublin   Dublin, Ireland
Master of Computer Science   *July. 2012 – December 2013*

Minzu University of China   Beijing, China
Bachelor of Electronic Engineering   *Sep. 2008 – June 2012*

EXPERIENCE

Software Engineer   Jan 2018 – April 2022
AVIC Airport Runway Engineering Technology Co., Ltd   *Beijing, China*

- Spearheaded the integration of microservices architecture, enhancing application modularity and scalability.
- Devised and implemented a GraphQL API layer, offering flexible data querying and reduced over-fetching of data.
- Employed industry-standard tools and frameworks for optimal full-stack development, including but not limited to Node.js, React,and Spring Boot.
- Collaborated with cross-functional teams to streamline DevOps processes, employing Kubernetes for container orchestration.
- Utilized containerization technologies, such as Docker, for seamless deployment and scaling of microservices.
- Integrating CI/CD with Jekins and Docker, reducing deployment time by half

Hardware Engineer/IT support   April 2014 – Jan 2018
Jinzhou Jiahe Trading Co., Ltd   *Jinzhou, Liaoning, China*

- Set up and maintain servers and routers, ensuring optimal performance and security.
- Configure and troubleshoot software systems including OA, mail servers, and web portals.
- Provide technical support to end-users, including software debugging and installation.
- Collaborate with team members to improve network infrastructure and implement upgrades.
- Document server and router configurations and procedures, ensuring accuracy and accessibility.
- Stay updated with advancements in hardware and software technologies relevant to the organization.

Projects

Shortest Path | *SpringBoot, Maven, Vue, MySQL, Docker*   Jan 2023 – Mar 2023
- Engineer a system to identify and implement the most cost-effective pathways between devices within the mining industry.
- Utilised Vue3 with Vuex for state management, enhancing frontend responsiveness and user experience.
- Integrated WebSockets ensuring real-time updates on route costs and device management.
- Migrated data storage to a cloud-native MySQL solution with automated backup and disaster recovery features.
- Deployed a multi-threaded environment to execute Dijkstra, Yen's, and A* algorithms simultaneously.
- Implemented GraphQL for more efficient, tailored data retrieval and reduced API endpoint maintenance.
- Integrated Apache Kafka for real-time data streaming and processing.

Recommendation System | *Python, Conda, NumPy, Pandas, Sciki, Pytorch, Git*   Oct 2022 – Dec 2022
- Engineered a cutting-edge recommendation system leveraging advanced algorithms to predict and recommend products to users based on intricate analysis of their previous purchase history.
- Implemented a hybrid recommendation model combining both User-based and Item-based collaborative filtering techniques.
- Employed advanced matrix factorisation techniques such as Singular Value Decomposition (SVD).
- Implemented a dynamic feedback loop, continuously adapting the recommendation model through reinforcement learning.
- Applied comprehensive evaluation metrics, including precision, recall, and F1-score.

Information Management System | *React, node.js, Express, MongoDB, Git*   Jan 2020 – Mar 2021
- Developed a comprehensive REST-ful full stack web application template for news and product management, applicable to various organizations.
- Dynamic Content Display: News, products, and services displayed dynamically based on backend updates.
- Filtering and Search: Enables users to filter and search for specific news, products, or services.
- Responsive Design: Ensures a seamless experience across various devices and screen sizes.
- User Authentication: JWT-based user authentication for secure login.
- User Management: Admin can manage existing users, including creation, modification, and deletion.
- Content Management: Admin can add, edit, or remove news, products, and services.
- Real-time Updates: Automatic updates to the user-facing frontend when changes are made in the backend.