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Chi **Zhang**

📞 +61 410461024 | ✉ zhangchi0104@gmail.com | ⊙ zhangchi0104 | ⊕ blog.otakuma.dev

Summary

Results-driven and detail-oriented graduate with a solid background in AI and frontend development. Experienced in training models with Pytorch and web user interface development with React and Vue. Proficient in agile methodologies leveraging tools like GitHub Projects and JIRA to create comprehensive requirement documentation and smooth project implementation. Familiar with project deployment with Containerisation technology such as Docker, allowing quick and standardized product delivery.

Core Competencies

Programming Languages

- Python: Trained AI models and conducted Data analysis
- Javascript/Typescript: Built web user interface and web servers
- Rust: Implemented multi-threaded web servers with a plugin protocol
- Kotlin: Created an Android App that interacts with multiple web services and onboard sensors
- C/C++: Implemented classic algorithms with C and C++ for native performance.

Frameworks

- React: Built a medical diagnosis chatbot
- Pytorch: Conducted AI model training for cell segmentation and text embedding learning
- Vue: Constructed web interface for dashboard and data visualisation

Other Tool

- JIRA: Created tasks and monitored them to guarantee prompt completion and effective advancement toward project objectives
- Docker: Deployed containerised web applications to the server and cooperate with other services to achieve scalable and modular web services
- GitHub Actions: Experienced in creating pipelines for testing and uploading the final product to the remote repository

Education

University of Melbourne   Melbourne, Australia
Master of Computer Science   2023.07 - Current

The University of New South Wales (UNSW)   Sydney, Australia
B.Sc Hons (Computer Science, Distinction), B.Comm (FinTech)   03.2018 - 11.2021

- Coursework (FinTech): Portfolio Management, Wealth Management, Fintech Toolkit, Bitcoin and Decentralised Finance, Venture Capital, Financial Market Data Design and Analysis, Introduction to Database for Business Analytics
- Coursework (Computer Science): Machine Learning, Neural Network, Computer Vision, Advanced C++ Programming, Web Frontend Programming, Extended Algorithms and Programming Techniques, Object Orientated Programming, Solving Modern Programming Problems with Rust

Professional Experience

National Supercomputing Center   Wuxi, China
Full Stack Developer, Intern   09.2020 - 05.2021

- Implemented a comprehensive dashboard with Vue.js for job status visualisation allowing users to take better strategic decision
- Created detailed visualisation for job input-output statistics with echarts to offer a more friendly presentation and assist them in making informed decisions

- Developed an API gateway enabling seamless and secure communication with the web interface and backend thrift service
- Refactoring and optimising existing code to user interface performance

Projects

Medical chatbot (Honored with High Distinction)   Capstone

Group leader
- Built an intuitive web interface using React and Redux to provide a messenger-like interface
- Constructed a RESTful server with Flask and MongoDB for efficiently handling messages in different formats
- Incorporated Google Dialogflow API for accurately analysing users' intentions and providing a more personal experience
- Conducted weekly meetings to ensure task tracking on JIRA to ensure seamless project execution

MeoAssistantArknights (9k+ stars on GitHub)   Open Source Project

Community Contributor
- Engineered a Dart binding for the C++ library, empowering developers to implement a cross-platform interface with Flutter seamlessly
- Conducted unit testing for the API binding, ensuring its functional correctness
- Created issues and pull requests on GitHub to enhance communication with the development team
- Documented the API using Dart standard to enhance readability and simplify maintenance

UltiRTS/Nest-Plasmid   Open Source Project

Community Contributor
- Built a game lobby server with Nest.js and Typescript, allowing scaling with node.js workers
- Adopted multi-layer data storage with Redis and MySQL strategy for better performance
- Capable of token-based session management and Inter-Process communication for improved modularity.
- Facilitates real-time user-to-user and channel chatting with WebSocket enhancing user experience.

Internet Relay Chat   Individual Project

- Developed an internet reply chat server with Rust for native performance and enhanced security
- Allowing multiple clients to connect and talk to each other with multi-threading
- Developed a plugin protocol to enrich the user experience
- Conducted thorough testing with 95% code coverage

Research

Seed Guided Topic Modeling   Sydney, UNSW

Supervisor: Prof. Raymond Wong   02.2022 - 12.2022
- Developed a user-topic-based word clustering algorithm with an ensemble pipeline that involved integrating a pre-trained BERT model for handling unseen words, a fine-tuned model to learn dataset embeddings, and combining results using a weighted ranking algorithm.

Awards

- **University of Technology, Sydney** - Academic Excellence Award with an undergraduate offer for outstanding students.