Chua Ruifeng Ray

raychua0106@gmail.com | github.com/stinkray77 | www.linkedin.com/in/raychua0106 | +65 92744840

Education

National University of Singapore   Singapore
B.S. Computer Science, Minor in Mathematics   Aug 2024 - Aug 2028

- Relevant Coursework: Data Structures and Algorithms, Database Systems, Programming Methodology, Computer Organisation, Calculus for Computing, Linear Algebra for Computing, Probability and Statistics

Work Experience

GetMarked   Singapore
Computational Linguistics & AI Intern   Dec 2025 - Present

- Engineered an automated Python pipeline using the OpenRouter API and sentence-transformers to generate structured NLP datasets across 5 languages, enabling programmatic content generation.
- Designed rigorous JSON data structures to standardize complex linguistic attributes (phonetics, semantics, parts of speech), ensuring strict data validation for the application layer.
- Collaborated with the founder to translate linguistic constraints into technical specifications, integrating RESTful APIs for model inference to architect the core data layer for algorithmic educational resources.

Projects

Limit Order Book (C++) | High-Performance Trading Engine   https://github.com/stinkray77/Cpp-Limit-Order-Book
Developer

- Engineered a low-latency matching engine in C++ utilizing **std::map** and **std::unordered_map** to enforce price-time priority execution for Limit and Market orders.
- Optimized memory management by implementing smart pointers and minimizing object copies, eliminating memory leaks and reducing overhead during high-frequency updates.
- Achieved order processing latency of **~117 nanoseconds** (p99) by leveraging compiler optimizations (-03) and CPU-native architecture builds.

GradWise - Academic Planning Web App | NUS Orbital 2025   https://github.com/lanjia0/orbital
Full Stack Developer

- Designed and deployed a React + Node.js + MongoDB platform enabling students to optimize academic planning
- Implemented secure authentication and interactive data visualizations, enhancing usability through reactive data rendering and reduced load times.

LocationTrust - ML Review Validation Tool | Tiktok TechJam 2025   https://github.com/stinkray77/LocationTrust
Machine Learning Developer

- Developed an ML-powered system to detect policy violations and evaluate trustworthiness of Google reviews.
- Trained and deployed NLP classification models, achieving 85.5% accuracy in review authenticity detection.

Skills

- **Programming Languages:** Python, Java, C/C++, JavaScript, SQL, HTML, CSS
- **Frameworks/Tools:** React, Node.js, MongoDB, Firebase, Railway, Git
- **Libraries:** SentenceTransformers (SBERT)
- **Certifications:** CS50x: Introduction to Computer Science

Leadership

NUS Sheares Hall   Singapore
Dinner and Dance (D&D) Logistics IC   Aug 2024 - Aug 2025

- Managed event logistics, coordinating vendors and schedules for a 200+ attendee event, ensuring smooth execution