

Jade Duan

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Technical Skills

Python, JavaScript, C#, Java, C, C++, SQL, Julia, R, Pytest, Junit, Cypress
RESTful API design, architectures, infrastructures, algorithm design

Experiences

Software Developer Intern @ UBC IT, *Sep 2023 - Sep 2024*

- Developed a software tool to validate configurations for a dense, multi-layered network across 3 campuses, 2 hospitals, and 100+ facilities.
- Maintained RESTful API tests for an in-house network tool, reducing recurring issues by 25%.
- Refactored APIs to enhance modularity, decreasing feature expansion time by 15%.
- Optimized Python-based inventory tool architecture, increasing code readability by 33%.

Technical UI Designer @ Beamdog Games, etc., *Apr 2020 - Aug 2022*

- Contributed to the CI/CD workflows, improving UI reliability and timely delivery across sub-systems.
- Coordinated requirements from different departments, reduced 12% operational frictions.

Lead Designer, Civil Engineer @ I&S Studio, Huayu Engineering, etc., *Pre-Feb 2020*

- Designed robust and cost-efficient civil structures and drafted blueprints.
- Integrated key business needs into consumer engagements, increasing sales by 52%.

Selected Projects

Crypto Exchange Rate Viewer (*Personal*), *Apr 2025 - May 2025*

- Implemented strong type safety to reduce runtime errors and enhance code maintainability.
- Secured 100% of sensitive API traffic via secret management using `.env` files and scoped fetch modules.
- Applied synchronization patterns for consistent and timely rate updates across components.

Network Configuration Checker (*Professional*), *Jan 2024 - Mar 2024*

- Designed the core algorithm and selected optimal data structures, improving validation speed by ~30%.
- Built robust Python-based solutions following industry-standard development principles, reducing complexity by 25%.
- Authored 50+ unit tests to ensure functionality and future scalability.

Git Peek (*Personal*), *Dec 2024 - Jan 2025*

- Developed a backend to process GitHub repository statistics per user.
- Optimized API calls, reducing redundancy by over 40%, minimizing rate limit issues.
- Deployed on Azure and Render.com, achieving 99.9% uptime.

Coding Quizzes (*Academic*), *May 2024 - Jul 2024*

- Integrated an LLM API using Node.js to generate and evaluate quiz content dynamically.
- Designed data mapping logic to render real-time results into UI using JavaScript, MySQL, and CSS.
- Collaborated in a team of 4 under Agile methodologies with code reviews and Git-based version control.

Education

B.Sc., Computer Science, University of British Columbia, BC, CA

M.Eng., Structural Engineering & B.Eng., Civil Engineering, various universities, CN