Dean Cruz

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Summary

Frontend-focused Software Engineer, now at NCS (AI Engineering & AgentOps) and studying Computer Science (AI and Big Data) part-time at UOW. Builds React, Next.js, and TypeScript apps, with professional experience in Angular, Spring Boot, and Java modernisation. IMDA Gold Medalist and top RP graduate.

Experience

AI Software Engineer 2026 – Present

NCS Group *Singapore*

- Designed key frontend components for a full-stack Angular and Spring Boot application, and implemented all backend functionality to specification
- Migrated 800+ raw JDBC queries to MyBatis 3, then reviewed and optimised the full set of 1,600+ queries to fetch only required data, improving efficiency and maintainability with no behavioural regressions
- Owned the JasperReports 6 → 7 upgrade on a legacy enterprise application, fixing a production bug where reports rendered incorrectly in Excel exports
- Migrated 6 EJB endpoints to SOAP web services (provider and consumer), with 24 more in progress
- Use NCS's in-house AI agent and OpenSpec (spec-driven development) to plan, implement, and review changes across legacy Java codebases

Software Test Engineer (Intern) 2024 – 2025

Oversea-Chinese Banking Corporation *Singapore*

- Automated 800+ regression and UAT test cases in Tosca and executed 300+ manual test cases in two weeks
- Presented feasibility studies on AI-driven test automation tools to senior stakeholders, influencing team tooling decisions

Projects

Kiroku | *Next.js, TypeScript, Tailwind CSS, Prisma, PostgreSQL*

- Full-stack anime tracker with Discord OAuth, email/password authentication, and JWT session management
- 7-day seasonal broadcast calendar with episode countdown timers and Framer Motion animations
- Genre-based recommendation engine built from watch history, plus a Recharts stats dashboard, using the Jikan API with exponential backoff for rate limits

Urara | *React, TypeScript, Tailwind CSS, Framer Motion, TanStack Query*

- Fan encyclopedia for Umamusume Pretty Derby using the umapyoi.net API, with Japanese-to-English translation via the MyMemory API
- Character browser with animated detail panels and a music player with character filtering and Apple Music previews
- Added a birthday calendar, searchable news feed, and dark/light theming, with responsive layouts across mobile, tablet and desktop

Oshiwatch | *React, TypeScript, TanStack Query, Tailwind CSS*

- Hololive stream tracker with live and upcoming streams, talent pages, and in-app playback with live chat
- Routed Holodex API calls through Vercel serverless functions to keep the API key out of the client bundle
- Infinite pagination on stream, shorts, and music tabs with TanStack Query's useInfiniteQuery (50 per page), plus branch filtering and generation-based talent sorting

Education

University of Wollongong 2026 – 2028

Bachelor's in Computer Science (Artificial Intelligence and Big Data), Part-time *Singapore*

Republic Polytechnic 2022 – 2025

Diploma in Digital Design and Development *Singapore*

- GPA: 3.97 / 4.00 | IMDA Gold Medal (2025) | 2x Diploma Prize (AY2022, AY2023)

Technical Skills

Languages: TypeScript, JavaScript, Java, Python, SQL, PHP, C#
Frontend: React, Next.js, Angular, Tailwind CSS, TanStack Query, Framer Motion
Backend & Data: Spring Boot, MyBatis, Hibernate, JDBC, REST APIs, JasperReports, PostgreSQL, MySQL
Tools & AI: Git, Tosca, Claude Code, AI coding agents, OpenSpec, Vercel, Render