Sarah Yoon

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Education

Chapman University Orange, CA
Bachelor of Science in Software Engineering, Minor in Game Development Programming *Aug. 2021 – May 2025*

Certification

Generative AI for Software Development Coursera, March 2025

Awards

Dean's List Scholarship Aug. 2021 – May 2025
Fowler Talent Scholarship Aug. 2021 – May 2025

Technical Skills

Languages: Python, C#, TypeScript, JavaScript, C++, SQL (MySQL), MongoDB, HTML/CSS
Frameworks: React 18, Node.js, Express, Flask, Unity (2D/3D), Tailwind CSS, Leaflet
Developer Tools: Git, Redis, Google Cloud Platform, Docker, Vitest, Figma, Cursor, Visual Studio

Projects

Berd-Nerding | *React, Node.js, MySQL, Redis, Leaflet, Vitest* March 2026

- Developed a full-stack geospatial application visualizing live bird sightings by architecting a Node.js/Express backend that integrates eBird, iNaturalist, and Nominatim REST APIs
- Optimized system performance and API rate-limiting by implementing a Redis caching layer, significantly reducing latency for recurring location-based data requests
- Engineered a responsive, interactive map interface using Leaflet, featuring custom SVG markers, smooth fly-to animations, and a dynamic UI that shifts color palettes based on the user's local time
- Ensured high code quality and production readiness by implementing 76 unit and integration tests with Vitest and React Testing Library, achieving robust coverage across 14 core frontend components

DailyByte | *TypeScript, React, TailwindCSS, Node.js, Google Cloud* July 2025

- Developed a full-stack spelling game platform using React with 7+ components, 3 custom hooks, real-time timer logic, score tracking, and animated visual feedback
- Built a Node.js/Express REST API with endpoints for quiz generation, data storage, and health checks, integrating Python + OpenAI API to dynamically create 9 themed spelling questions per session
- Implemented a dynamic time-based UI system with 6 themes (sunrise → night), using gradient backgrounds, color palettes, and reusable styled components across the app
- Deployed to Google Cloud via Docker containers with Cloud Run auto-scaling, Cloud Build CI/CD pipeline, and App Engine for production hosting

Rolland: Iron Arms | *Unity, C#, Asset Store Integration* June 2025

- Built a 3D action combat game in Unity using 52+ C# scripts and hierarchical state machines for 10 player states (idle, run, parry, dodge, etc.) and 8 enemy AI states (chase, stalk, attack, stun, etc.).
- Designed responsive combat mechanics including parry timing windows, 2-hit combo system, dodge rolls with invincibility frames, stamina costs for actions, and lock-on targeting with dynamic switching.
- Implemented a full UI system with menus, loading screens, victory/defeat states, animated button effects, world-space health/stamina bars, and customizable keybinds for all player actions.
- Developed seamless scene transitions with fade effects, asynchronous loading, and third-person camera controller that adapts during movement, combat, and lock-on interactions.

LAMP (Capstone Project) | *React, Node.js, MongoDB, Spotify API, Figma* Feb 2025 – May 2025

- Collaborated with a team to build a full-stack music album web application from prototype to deployment
- Contributed to software architecture by integrating frontend, backend, database, and Spotify REST APIs for seamless communication across the stack
- Converted a Figma prototype into a functional application while maintaining design fidelity
- Wrote test cases, debugged components, and used GitHub/Jira for version control and task management to ensure high-quality code delivery