Sang Won Cho

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Education

University of New South Wales – Bachelor of Medical Studies / Doctor of Medicine   Discontinued 2023
- Relevant Coursework: Wrote academic research paper on gender differences of intravenous drug users in Sydney

James Ruse Agricultural High School – High School Certificate. 99.65 ATAR, All-rounders List   2016
- Relevant Coursework: Software Design & Development (90), Maths Ext 1 (100), Maths Ext 2 (95)

Projects - Portfolio

3D Spheres Background React / TypeScript / Three.js / react-three-fiber   spheres3d.netlify.app
- Designed and developed an interactive 3D background for use in portfolio page
- Implemented physics-based motion for orbits around the cursor, with integrated raycasting to detect collisions
- Added light/dark themes and background enable/disable, with minimised re-renders for smooth transitions
- Implemented a spotlight that tracks the cursor relative to camera, with directional lighting based on active theme

Shopping Page React / react-router / CSS modules / vitest / React Testing Library   sang53.github.io/ShoppingPage
- Built a responsive e-commerce single page application using data from Fake Store API, with a persistent shopping cart using React Context API across multiple routes
- Developed a custom state reducer to handle changes of products and quantity in cart
- Used react-router for client-side routing of dedicated pages, including homepage, products, categories, product pages and cart, with splat routes to handle invalid URLs and 404 status code requests
- Implemented a fully functional carousel with navigation controls to display featured products on the homepage
- Wrote unit tests for components, hooks and contexts using vitest and React Testing Library with 95% coverage

Pokemon Memory Game React / JavaScript / CSS / HTML / vite   sang53.github.io/PokemonGame
- Developed a memory card game using data from PokeAPI, with dynamic styling of cards based on pokemon type
- Implemented custom caching and lazy loading of data to reduce redundant API calls and improve performance
- Added a high score system that tracks both session high score and all-time high score using local storage

Battleships JavaScript / CSS / HTML / webpack   sang53.github.io/battleships
- Built a web page version of the Battleships board game, playable against CPU or another player
- Implemented the full game loop, including instructions, settings, ship placement, shot selection and win conditions
- Created AI for CPU that targets adjacent squares after a single hit, with correct orientation after multiple hits

Skills

Programming Languages: JavaScript, TypeScript, CSS, HTML, Python, C, SQL
Tools & Frameworks: Git, Bash, React, vite, webpack, Node.js, Three.js, react-three-fiber, React Testing Library, vitest

Experience

Pick Packing, BevChain – Rosehill, NSW   FEB 2024 – JULY 2024
- Adhered to safety & company protocols while fulfilling KPIs and minimising errors, ensuring timely delivery of alcohol

Medical Student, UNSW – Sydney, NSW   Jan 2017 – DEC 2023
- Collaborated with medical teams in daily ward rounds to ensure optimal patient management
- Communicated with patients in a structured and comprehensible manner to gather relevant medical information
- Engaged in self-directed learning, proactively seeking opportunities and engaging in self-reflection to ensure continuous improvement

Private HSC Maths Tutoring – Sydney, NSW   Jan 2017 – DEC 2022
- Identified learning obstacles and devised methods to help students overcome challenges
- Structured and planned lessons for students to achieve their learning goals within designated timeframes