

JACKSON HEMI

Web Developer & Product Design Engineer

Email: jacksonrhem@gmail.com

Mobile: +64 211644141

GitHub:

<https://github.com/JRHemi>

Web Development portfolio:

<https://portfolio-tqyn.onrender.com>

Product Development portfolio:

<https://sites.google.com/view/jacksonrhem/home>

SKILLS

- Great communicator
- Problem diagnosis and solving
- Strong time management
- HTML & CSS
- JavaScript & TypeScript
- React & Redux
- Node & Express
- PostgreSQL
- Jest & Supertest
- Git
- Python
- Figma Prototyping
- Atlassian tools

SELF-DIRECTED LEARNING

Zero to Mastery – Junior to Senior Web Developer.

Sep 2024 – Current

Learning and practicing intermediate web development concepts including Website optimisation, Redux, PWA, TypeScript, Testing.

Zero to Mastery – Complete Web Developer.

Jun 2024 – Aug 2024

Learning and practicing the fundamentals of web development using HTML, CSS, JS, React, Node, Express, SQL.

Udemy - 100 Days of Code: The Complete Python Bootcamp 2023

Have used Python in the workplace to automate data processing workflows.

PERSONAL STATEMENT

I am a web developer with experience in React and Node.js, focused on creating intuitive front-end experiences and integrating them with robust back-end systems. Through self-directed learning and hands-on projects, I have developed a solid understanding of the web stack, including front-end, back-end, and database interactions. As a Product Design Engineer I have collaborated within cross-functional teams, applied engineering principles, and delivered user-focused solutions. I am highly motivated to continue growing my skills as I progress in my software development journey.

WEB DEVELOPMENT EXPERIENCE

WEB APP DEVELOPMENT | PERSONAL PROJECT | TEMPEST

Oct 2024 – Current

Developing a web application as a personal portfolio piece with guidance from a senior software engineer. This application assists kitesurfers in identifying ideal locations to kitesurf by analysing weather and tidal forecast data. Users receive notifications when nearby conditions become optimal.

Incorporated project scoping, research, and UX design techniques during the concept ideation phase to create a robust product. Defined goals, success measures, and risks, while user stories guided feature development. Wireframe prototypes were designed using Figma to refine and visualize ideas.

- **Frontend:** React, MapTiler SDK for interactive wind forecast maps.
- **Backend:** Node.js and Express with Model-Route-Controller architecture.
- **Database:** Firestore integration using Firebase Admin SDK for NoSQL data handling.
- **Authentication:** JWT-based request authentication, secure password storage with Bcrypt.
- **Testing:** Server API testing with Jest and Supertest.

FRONTEND DEVELOPMENT | COURSE PROJECT | TOWERNOTE

Sep 2024 – Oct 2024

This project built a dynamic note-taking app that allows users to record pages of notes. These pages contain reorderable notes of different types, including text, images, and links to other note pages. This project focused exclusively on the frontend, using React and TypeScript. Supabase was used for PostgreSQL data storage and authentication via OTP sign-in.

- **Frontend:** React, TypeScript, Higher-Order Components (HOCs), custom Hooks, DND Kit for draggable notes, and dynamic styling with Classnames.
- **Database:** Real-time synchronization with Supabase using custom hooks with debounced updates; CDN-hosted image storage via Supabase Storage.
- **Authentication:** OTP-based email sign-in and session management using Supabase.

FULLSTACK WEB APP DEVELOPMENT | COURSE PROJECT | FACE RECOGNITION APP

Jul 2024 – Aug 2024

This project is the first full-stack web application I developed. It uses the PERN stack and integrates the Clarifai API to identify faces in photos supplied by the user. The app includes basic login functionality and a photo share page where faces are identified. The Render cloud platform was used to host the app, API, and database.

- **Frontend:** Built responsive and reusable components using React.
- **Backend:** Developed stateless, resource-based APIs with Node.js and Express for user authentication, incorporating Bcrypt for password hashing. Integrated Clarifai API for face recognition.
- **Database:** designed a PostgreSQL database with separate tables for user information and login credentials, using transactions to ensure atomic operations and maintain data consistency.

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EDUCATION

University of Auckland - Auckland,
New Zealand

2015 - 2018

Bachelor of Mechanical Engineering,
Honours – 2nd Class, 1st Division

Mt Albert Grammar School,
Auckland New Zealand

2010 – 2014

VOLUNTEER WORK

Wonder Project – Engineering New
Zealand | Ambassador | Auckland
2022

Working alongside a schoolteacher to bring The Rocket Challenge to a classroom of children. A program designed for primary school kids to get them excited about science, technology, engineering and math.

FRONTEND DEVELOPMENT | COURSE PROJECT | ROBOFRIENDS

Jul 2024 – Sep 2024

This basic frontend app was created to practice front-end techniques learned throughout my studies. The app is built using React and integrates two APIs to fetch mock user data and profile pictures, then displays the combined information. The app features a search bar to filter users.

- **Frontend:** Built with React, practiced both class-based components with lifecycle methods to functional components with Hooks.
- **Redux:** Refactored the app to implement Redux for global state management.
- **Unit Testing:** Improved testability by refactoring the app; tested Redux actions and reducers with Jest and redux-mock-store.
- **Progressive Web App (PWA):** Converted the app into a PWA, configuring a service worker and web app manifest.

PRODUCT DEVELOPMENT EXPERIENCE

FISHER & PAYKEL TECHNOLOGIES | PRODUCT DESIGN ENGINEER

Jan 2022-Jan 2024

Conception of innovative new technologies within the rangehood market through design sprints, and research projects to set FPT's clients apart from their competitors. Applying customer-centric design principles to ensure that new concepts add value to users.

PETROMAC | GRADUATE MECHANICAL ENGINEER | AUCKLAND

May 2020 – Dec 2021

Designed and developed bespoke wireline conveyance systems for geophysical logging tools. Applied first-principles mechanical design, built working prototypes, and conducted validation testing to deliver highly effective solutions.