Melvin Vu

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Summary

An innovative and passionate Full Stack Developer with over 7 years of experience delivering scalable, high-performance web and mobile applications across sectors including **healthtech**, **SaaS**, and **crypto**. I particularly enjoy working with client-side like **React**, **React Native**, **Angular**, and **Vue** in Agile/Scrum environments.

Education

Hanoi University   **2013- 2017**

Bachelor's degree of Computer Science

Experience

Full Stack Developer, CarersHQ Ltd   **Oct, 2023 – Aug, 2025**

CarersHQ is a SaaS-enabled marketplace for elderly care services in the UK. It connects care recipients with professional caregivers. It also provides caregivers with care management software tools to aid them in care provision.

- Led a full refactor and modernization of an aging **React Native** application, migrating code to a modular, scalable architecture using **Expo SDK 50+**, **TypeScript**, and **React Native** for consistent UI/UX across platforms.
- Implement native OS authentication methods (**Touch ID**, **Face ID**) using **Expo** Local Authentication and native modules for secure and seamless user access.
- Architected and delivered robust care management features including:
  - Timesheet generation & validation, with real-time logging and digital signatures.
  - Task scheduling and calendar sync (integrated with Google Calendar API).
  - In-app communication module with real-time messaging, audio/video calls via **WebRTC**, and push notifications using Firebase Cloud Messaging (**FCM**).
  - Location tracking & routing with **Google Maps SDK** and geofencing for monitoring caregiver visits.
- Developed scalable **RESTful APIs** and **GraphQL** endpoints using **NestJS**, **TypeORM**, **PostgreSQL**, and **Redis** for caching real-time location and chat sessions.
- Implemented microservices architecture using **Docker** and **Kubernetes** for scalable backend deployments and service isolation.
- Created a responsive Admin Dashboard (**React + Chakra UI**) for managing users, carers, care logs, compliance, payments, and analytics.
- Integrated **Stripe** for secure payments, earnings tracking, and subscription management.
- Ensured data compliance with **GDPR** by implementing robust encryption, access control (RBAC), and audit logging.
- Setup and maintained **CI/CD** pipelines using **GitHub Actions** and deployed it using **Docker**, **AWS Fargate**, and **S3/CloudFront** for frontend hosting.
- Wrote unit and integration tests using **Jest**, **React Testing Library**, and **Supertest**.
  Tech Stack: React Native, Expo, TypeScript, NestJS, Node.js, PostgreSQL, Redis, Docker, Kubernetes, AWS (ECS, Fargate, S3, CloudFront, RDS), Stripe, Firebase, GraphQL, WebRTC, Jest, CI/CD, Sentry, Datadog

Front-end Developer, Miidas   **Sep, 2021 – Sep, 2023**

- Created frontend using UX design in a pixel-perfect and user friendly way.
- Created frontend to integrate Live video conferencing & collaboration function using **WebRTC**.
- Developed a blockchain-based NFT marketplace platform using **React**, **Redux Toolkit**, **Material-UI**, **Storybook**, and **Web3.js**.
- Introduced an atomic design with descriptive documentation using **Storybook** and configured its UI library and design system on the top of **Material-UI** using all the reusable components like atoms, molecules, and organisms.
- Built a user-friendly filtering functionality and boosted the code quality and performance significantly.
- Created several muti-chart like Line Chart, Bar Chart, Pie Chart and Bubble Chart within backend APIs integration.
- Created test cases for frontend using **Jest**.
- Integrated **ChatGPT** API in user QA page.
- Created a React Native mobile application, integrating Auth0 for authentication, Firebase Cloud Messaging (**FCM**) for push notifications, and various third-party APIs to enhance functionality and user experience.

  Tech Stack: React, Redux, Next.js, Storybook, TypeScript, Tailwind CSS, Material-UI, WebRTC, Web3.js, Webpack, CanvasJS Chart, Node.js, ChatGPT, Jest, React Native, Firebase

Full-stack Engineer, Wee Bee Kids Inc   **May, 2019 – Aug, 2021**

- Created frontend using **Figma** design for mobile responsiveness.
- Led the development of a unified rich text editor that runs on mobile, desktop, and web for users.
- Developed a **JavaScript**-based image annotation app that runs on desktop and web, it also allows for re-editable PNGs/JPGs by storing vector annotation data in the image binary.
- Created a feature to present **Angular**-based pages in a full-screen auto-generated presentation with advanced user controls and layout options.
- Integrated a build pipelines of 5+ complex applications to reliably use common rich-text editing component.
- Developed a custom vector graphics library for use in annotating both bitmaps and PDFs. Implemented **Microservices** using a serverless framework.
- Developed a **React Native** mobile application and implemented a real-time messaging feature using **WebSockets**, ensuring seamless and instant communication between users.

  Tech Stack: Angular, NgRx, Rx.js, EJ2, Tailwind CSS, PHP, MySQL, React Native, GraphQL.

Front-end Developer, Homyse   **Oct, 2017 – Apr, 2019**

- Worked on providing API endpoints with **Node.js** and **MongoDB**.
- Built from scratch admin platform for managing platform's database entities and users using **React**, **Node.js**, and **Mongoose**.
- Implemented complex UI components with **React/TypeScript** and **SCSS**.
- Improved the UX by creating several DnD-based components.
- Created mobile app and integrated with backend APIs using **IONIC** framework. Wrote scripts to use and manipulate data from various sources.
- Wrote scripts to use and manipulate data from various sources.

  Tech Stack: TypeScript, React, Redux, Next.js, Tailwind CSS, Node.js, IONIC, REST API, Google Cloud Platform (GCP), WebSocket, Webpack, Mongoose, Jest

Skills & abilities

- Html, CSS | SASS
- Bootstrap | Tailwind CSS
- Material UI
- Javascript, Typescript
- React | Redux | Reduxthunk, Next.js
- React Native
- Expo
- Angular, Rx.js
- Vue | Nuxt
- Node.js | Express | Nest.js
- PHP | Laravel | Wordpress
- MongoDB, SQL, MySQL, Postgresql, GraphQL
- Jest, Mocha
- Apache Cassandra, Kafka, Elasticsearch
- Swagger
- Microservices
- WebRTC
- Storybook
- Stripe
- Firebase
- Solidity | Web3 | Ethers
- Karma, Jasmine, Cypress
- RESTful API, Google APIs
- WebRTC
- Sentry
- Datadog
- NPM
- AWS (Dynomodb, S3 bucket, Lambda, SQS, EC2, Fargate, CloudFront, RDS), Azure
- Nginx
- Docker, Kubernetes, Jenkins, Maven,Terraform
- Git, GitLab
- Jira, Notion, Trello
- Scrum