Harvey Connor

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Languages/Frameworks/Tools

Node.JS, JavaScript, TypeScript, Java, React, React Native, Swift, Kotlin, SQL, CSS, NoSQL, Redux, Zod, Azure (App Services, VNET, APIM, FNN, Bicep), Serverless, Git, UNIX, Bash, Docker, RESTful, JWT, Figma, YUP, JSON Schema, GraphQL, Swagger, Dev Ops CI/CD, NestJS, Tailwind CSS, SaaS

Employment

Lead Software Engineer - Nura Space — Jan 2023 – Present

- Managed team of 10+ developers whilst still having full workload in developing, designing and integrating React, Typescript and NodeJS applications with Azure's cloud services.
- Worked with UI/UX designers in Figma to develop highly functional applications with the best UX.
- Improved PostgresSQL database performance and load management saving the company $50K.
- CI/CD Pipelines speeding up development time including unit tests and code coverage requirements.
- Government based clients placed in isolated tenants using PaaS model (Azure Bicep files).
- Reduced development build time by 50% introducing SWC Core into webpack with React.
- Built mobile apps with React Native and reduced mobile app battery usage by 90% by sending silent push notifications to trigger BLE scanning.
- Built NestJS API and created GraphQL client that optimistically updates in React.js Typescript.
- Built powerful React front-end applications using Material UI, Tailwind CSS, Zustand and PWA.

Full Stack Software Engineer - Nura Space — Jan 2021 – Dec 2022

- Architected entire Serverless PostgresSQL application for background processing user operations.
- React Native mobile application performance improvements by >50%, with initial load times improving on both iOS and Android by 3-4 seconds, and used redux + context providers for state management.
- Built a stable and performant backend that handles over 10M requests a day with <200ms response using Node, NestJS, Typescript and a Swagger API JSON schema for simple documentation and integration.
- Created platform which started with 300 users and now facilitates over 50,000 concurrent users.
- Designed a packet protocol to exchange encrypted information between hardware beacons and mobile phones using React, React Native, Bluetooth LE, AES and Diffie-Hellman key exchange.
- Configured JIRA, MS Teams, Azure Active Directory, Exchange and email servers.

Application Developer – Smart Guide — Nov 2018 – Dec 2020

- Used React and React Native to build stateful applications with Redux.
- IoT device development integrating hardware and mobile phones with React Native and JS Bridge.
- Designed and implemented trolley GPS tracking system using LoRA supporting a 3km range.
- Integrated turn-by-turn navigation with Google Maps Directions API to locate lost trolleys.
- Triangulated estimate position of people indoors using relative RSSI of BLE beacons.
- Built working prototype of Nura Space, presented to board at Schiavello and ultimately hired me.

Freelance Web & Mobile App Developer — Jan 2017 – Nov 2018

- Worked with PHP (Laravel) and VueJS on the music platform SpareMusic which generates millions of dollars in revenue through distribution chains like Spotify and Apple Music.
- Created an MVP for WeWorld which is a social media platform (React, Node.JS, React Native) to share photos of your travels across the world and build up your "world map" by colouring-in each country once visited.

Education

Bachelor of Science – Monash University (Transferred to RMIT) March 2016 – Nov 2016

Bachelor of Information Technology - RMIT University March 2017 – Nov 2019

Projects

Medi-Kinect

- Coded in Java, React, TypeScript, NodeJS and MongoDB
- First year university project integrating all aspects of Information Technology.
- Medical system that utilises Microsoft Kinect's infrared to detect human movements within a zone.
- System detected if a patient had fallen from their bed and triggered an audio prompt asking for help.
- Used Google's voice-to-text Java library to determine if patient needed help.
- Once acknowledged, alert would be sent via web-sockets and push notification to a web UI where nurses could view and then tend to the patient's needs.

Timing gate system

- Coded in C/C++, Python, NodeJS
- High speed timing gate system using ESP-32's long range WiFi to communicate between pods.
- Accuracy to 1/1000th of a second, can be used for competition and training.
- Laser, LiDAR and infrared to determine athlete passing a gate.
- LED indicator and LCD screen to show live lap and overall time much like a stopwatch.
- Timing pods synchronise their RTC time with each other (NTP) and communicate back with the user's mobile device to sync the performance/session with their account.

Other Employment/Experience

Athletics Coach - St Kevin's College August 2017 – Present

- APS Premierships in 2018 & 2019.
- Facilitating the sport of track and field athletics coaching sessions for school athletes during the APS competition season. Horizontal jumps specialist (Long Jump & Triple Jump) and high jump coach.

Athletics Coach - Loreto Mandeville Hall Toorak June 2018 – September 2019

- GSV Premiership in 2018.
- Facilitating throws coaching sessions, specialising in Discus in preparation for the GSV Division 1 Championships and Finals.

Awards

2023 Schiavello Young Achiever Award

- Recipient of the Young Achiever Award at Schiavello Group, which is the parent company of Nura Space recognizing young achievers under the age of 30.