# **Charles Zhao**

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Portfolio

#### **E**MPLOYMENT

# **Frontend Developer**

## Carsales (i-Motor)

Jan 2022 - Jun 2023

- Responsible for replatforming SaaS to a modern tech stack and cloud infrastructure a no-code website builder, scalable to thousands of static sites.
- Proposed and led the adoption of TypeScript to improve developer experience and code scalability.
- Maintain and refactor the component library, contributing to reusability, responsiveness and composition.
- Assisted in debugging framework OOM errors (Issue: Github) and React 18 SSR bugs.
- Work with Node.Js API to programmatically create redirects during build time, dependent on CMS data.
- Tech: Gatsby.Js, Typescript, Mapbox, Google Tag Manager, Emotion, GraphQL, Gatsby Cloud.

# **Frontend Developer**

#### Videohead

Oct 2021 - Mar 2022

- Designed and built an online platform to manage and display projects.
- Created a Bash script to automate the task of trimming, converting and optimising short gifs from videos.
- Leverage webhooks to automatically rebuild associated static pages upon new content publishing.
- Created migration scripts to reshape existing data according to new requirements.
- **Tech**: Next.Js, Sanity, Typescript, Bash.

#### Web Developer

#### **Entropico**

May 2021 - Oct 2021

- Built a Javascript plugin to programmatically generate query parameters for lightbox videos. Ensured potential clients could have exact video projects shared to them.
- Added a solution where editors can provide more individual project metadata to display.

#### SOFTWARE PROJECTS

#### **Designer and Developer**

#### InternationalStudySpots (Github)

Jun 2023 - Current

- Designed and developed an accessible index of user-submitted study spots around the world.
- Custom hook for Google Places facilitating caching and debouncing of autocomplete requests.
- Next.Js ISR for map page to ease server load.
- TRPC and Zod for type-safety and development speed.
- Performance optimization with code-splitting and using react-query cache to "pre-render" detail pages.
- Tech: Next.Js, TRPC, Prisma, Google Places, S3, Cloudfront, PlanetScale, React Hook Form, Zod, Radix.

#### **Designer and Developer**

#### Machen V2 (Github)

Jul 2023 - Current

- Designed and developed a daily note app that's keyboard navigable with integration tests.
- <u>Tech</u>: Next.Js, Zod, Emotion, Jest, React Testing Library.

#### **Designer and Developer**

# **Superhighway** (Github)

Jun 2022 - Dec 2023

- Designed and developed an e-commerce website.
- Implemented an automated workflow where updating content in the CMS triggers a webhook to initiate a quick rebuild of the related page.
- **Tech**: Next.Js, Shopify, Sanity, SWR, Typescript, Cloudinary.

#### **EDUCATION**

#### Sydney, Australia

#### **University of Technology**

Fall 2015 - Fall 2018

• Bachelor of Business (Finance and Marketing)

#### SKILLS

 React, Typescript, Javascript, Node.js, Express, Emotion, TailwindCSS, AWS, Next.Js, Gatsby, Headless CMS, Sanity, HTML, CSS, Gatsby Cloud, MongoDB, GraphQL, REST, performance optimization (virtualized lists, memoization, CDN, code-splitting, composition), accessible and responsive design.