

Chia Kang Jin

Full Stack Developer

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Work History

Senior Frontend Developer

April 2022 - Present

[Autify, Inc., Japan](#)

- Maintained the test automation pipeline for executing tests against a web browser, serving 300+ companies
 - Architected solutions for email delivery testing and PDF generation
 - Debugged native selenium webdriver and chromium internals for stabilizing browser automation
 - Active development on the Chrome Extension for recording and replaying browser actions
- Maintained the test automation platform targeting mobile applications
 - Migration of a Rails MPA to a React SPA
- Assisted in building the test automation pipeline for a desktop application
 - Drove the development of the scheduling feature
 - Deployed an self-serve infrastructure provision API with necessary AWS IAM permission isolation
 - Built an OpenAPI 3.0 spec compliant API.

Tech stack

Frontend: React, Redux, Apollo, Electron, Typescript, Chrome Extension API

Backend: Ruby on Rails, GraphQL, Postgres, SQLite

Deployment: Github Actions / CircleCI

QA: Jest, Testing Library, Mock Service Worker, RSpec, Playwright, Autify

Infrastructure: AWS (Fargate / ECS / EKS) / k8s / Pulumi / Terraform

Analytics: Holistics, Athena

Full Stack Developer

Oct 2019 - March 2022

[Rakuten, Inc., Japan](#)

- Coordinated between 4 different departments with 20+ people to build an in-house analytics platform
 - Departments: Data Pipeline, Data Tracking, Data Consulting, Product Management
 - Main Features: Form Builder, Query Builder, Multiple timezone support
- Helped to maintain the CI/CD pipeline and support the transition to Kubernetes
- Took ownership of the logging architecture
- Mentored other developers and participated in productive code reviews
- Improving the QA process with automated testing
- Migrated the codebase over to Typescript
- Developed an ESLint plugin for GraphQL linting

Tech stack

Frontend: React, Redux, MaterialUI, Typescript, Tailwind

Backend: node.js, GraphQL, hapi.js, MongoDB, Redis, RabbitMQ

Databases: Presto, Druid, Elasticsearch

Scripting: Python 3, Jupyter Notebook

QA: Jest, Cypress, Testrail

Infrastructure: Jenkins, Docker, CloudFoundry, Kubernetes

Software Development: JIRA, Confluence, Bitbucket

Senior Software Engineer

Apr 2018 - Aug 2019

Tectus Dreamlab, Singapore

- Solely maintaining a web app for Proceq, which produces tools for non-destructive testing (NDT)
 - Worked on chart visualizations with Highcharts, geo-analytics with Google Maps
 - Built an offline HTML-based report with jsdom
- Collaborated on the Screening Eagle platform, a management tool for the construction industry
 - Constructed a dynamic form builder for issue tracking
 - Worked with PDF rendering with PSPDFKit and 3D rendering with three.js
- Spearheaded an integrated testing effort that brought bugs down to a near-zero level
- Integrated i18n into the web app
- Implemented a deployment pipeline for a one-click build

Tech stack

Frontend: React, redux, redux-saga, recompose, ant.design, stylus, storybook, Webpack 4, Flow

QA: Jest, Cypress, Sentry

Infrastructure: Gitlab CI, Jenkins pipelines, Docker, AWS

Software Development: Gitlab, JIRA

Frontend Developer

Feb 2015 - Mar 2018

Spacebib, Singapore

- Built the public-facing and internal admin site for a sporting events platform
- Collaborated with the backend for a seamless API integration
- Continuously collected and iterated on design feedback to improve usability
- Constantly monitoring integration tests and dashboard metrics to ensure site uptime

Tech stack

Frontend: React, Redux, MobX, Apollo, Bootstrap, SASS, JSPM, Webpack 2, Typescript

QA: Mocha, Selenium Webdriver, Webdriver.io, Browserstack

Backend: CakePHP, GraphQL, Jenkins, Ubuntu 14.04, Linode

Software Development: Github

Full Stack Developer

Jul 2012 - Apr 2014

Pytheas Travel, Singapore

- Built a whitelabel CMS SaaS solution catering to 50+ travel agents
- Migrated 35K customers, 1K products and 5 clients to our CMS, preserving DNS and email functionality
- Automated the deployment of development and production servers with Puppet
- Built a proof-of-concept logging framework based on Elasticsearch

Tech stack

Web: Codeigniter 2, JQuery

QA: PHPUnit, Selenium Grid

DevOps: postfix, Nginx, Jenkins, AWS, Puppet, CentOS6

Software Development: In-house SVN repository

Web Developer

Mar 2012 - Jun 2012

Doorstep Luxury, Singapore

- Developed a **WordPress** e-commerce site for luxury goods, creating and modifying plugins as necessary
- Built a standalone web-based point-of-sale (POS) system to scan from a webcam and print receipts

Web Developer

Dec 2011 - Feb 2012

KLIF Media, Singapore

- Built a prototype of a social media site on **Symfony 2**

Education

Bachelor of Arts (B. A.) Psychology

Aug 2008 - Jun 2011

National University of Singapore

- Electives in Programming and Linguistics

Skills

Exposure to Other Languages/Frameworks

R, node.js, Angular 1, Elm, Rust, Go, React Native/Expo, Python 3/pandas, vue3, C#, C++, Ruby

Languages

English (Proficient), Chinese (Basic), Japanese (Basic)

Certifications

Red Hat Certified System Administrator (RHCSA) Certification ID: 140-241-662

Algorithmic Toolbox by University of California, San Diego & Higher School of Economics on Coursera

Huggingface Audio Course Certificate of Excellence (xiankai123)

Meetup Talks

Alternative Libraries for React - JSPM and MobX

<https://engineers.sg/video/alternative-libraries-for-react-reactjs-singapore--900>

Data-driven development with Flow

<https://www.meetup.com/React-Singapore/events/240880621>

Personal Projects

Remote Explorer (private github repository)

- An android file explorer app for file access over the Samba protocol built with Kotlin / Jetpack Compose

Doorbell Detector (https://github.com/xiankai/doorbell_detector)

- A python script to utilize machine learning for audio classification in order to detect the sound of a doorbell

FFXIVFurigana (<https://github.com/xiankai/FFXIVFurigana>)

- A C# plugin to the game to display furigana over Japanese in the chat log output

ChatHistory w/ Vector DB (<https://github.com/xiankai/chat-history>) (<https://github.com/xiankai/vector-database>)

- Importing and displaying chat history from old messaging programs, utilizing a vector DB for semantic search

Triple Triad V2 (<https://github.com/xiankai/triple-triad-ai>)

- An experiment with Rust to replicate the working logic of the card game

XIVAnalysis (<https://github.com/xiankai/xivanalysis>)

- Collaborating with other users to analyse combat performance in Final Fantasy XIV
- Using **React**, **SemanticUI**, **CSS Modules**

Pokémon Go Map (<https://github.com/xiankai/sg-pokemongo-ex-raid-map>)

- A local map to track and predict locations of popular EX-raids in Pokémon Go, serving 3k+ users
- Built with **Typescript**, **MobX**, **Leaflet** and **d3.js**
- Designed to be replicated for other countries as well
- Auto-updated data from a google drive spreadsheet
- Implemented various mapping techniques like (**S2 cells**, **point-in-polygon**) to visualize map data
- Used **Mapbox** for map layers before switching to **OpenStreetMap (OSM)**

Triple Triad (<https://github.com/xiankai/triple-triad-solver>)

- A multiplayer implementation of a mini-game in Final Fantasy XIV, using peerjs to polyfill WebRTC
- Using **redux-observables/RxJS** for state management

Web Crawler (<https://github.com/xiankai/Disney-Store>)

- Crawled the Disney Store for product updates to notify up to 15 subscribers of new stock
- Used **cURL** to crawl pages, **redis** to store hourly data and **Mailchimp** to send notifications

Discord bot (<https://github.com/xiankai/pusheen-the-fc-helper>)

- Another web crawler to crawl ten thousands of pages using a job queue mechanism
- Used **phantomjs** to crawl pages, **redis** to store data and **node.js** to host the chat bot interface

Server Administration

- Managed a few VPS to host various bots and websites for other people
- Migrated the server 6 times, alternating between Linode, AWS and Digital Ocean, using **rsync**, **mysqldump** and **Puppet** to quickly rebuild environments, preserve data, and maintain 100% uptime