Cristopher Zhang

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PROFESSIONAL SUMMARY

Experienced and highly skilled senior software engineer with a proven track record of success in the industry. With a deep understanding of computer science principles and extensive programming expertise, I have consistently delivered innovative and high-quality software solutions throughout my career. I excel in analyzing complex problems, designing robust architectures, and implementing efficient code. Proficient in a wide range of programming languages especially in JavaScript and Python, I have a strong aptitude for learning and adapting to new technologies and frameworks. I am a natural leader and collaborator, adept at guiding cross-functional teams and mentoring junior developers. Seeking a challenging senior software engineer role where I can leverage my expertise to drive impactful projects and contribute to the growth and success of the organization.

Core Proficiencies

- JavaScript – 12 years
- Python – 11 years
- Frontend development – 11 years
- Full-stack development – 8 years
- Database / SQL – 8 years
- Scrum / Agile – 8 years
- REST APIs – 8 years

Technical Skills

- **Agile Methodologies:** Agile, Scrum, Test-Driven Development (TDD), OOP, DevOps and Pair Programming.
- **Web Technologies:** HTML/HTML5, CSS/CSS3, SASS, SCSS, JavaScript, TypeScript, ES6+, XML, DOM, AJAX, jQuery, Alpine.js, JSON, Bootstrap, W3C standards, RESTful APIs, WebAssembly, WebRTC, PWA, Canvas.
- **Frameworks:** Vue.js(Vuex, Vuetify, Vue Ecosystem), React, Backbone.js, Express.js, Nest.js
- **Cloud:** AWS (EC2, Document DB, S3, SQS, RDS), GCP, Azure.
- **Databases:** MySQL, PostgreSQL, MongoDB, Oracle, Cassandra.
- **Testing:** Mocha, Jest, Jasmine, Selenium, Cypress.
- **Container:** Docker, Kubernetes.
- **Deploy Servers:** Heroku, DigitalOcean, AWS EC2, Netlify.
- **Build & CI:** Webpack, Babel, Culp, Jenkins.
- **Others:** Windows, Linux, Unix, Design patterns.
- **Tools:** Git, NPM, ESLint, VSCode, Slack, Jira, Asana, Trello.

WORK HISTORY

Sr. Software Engineer | ICO Limited   Feb 2018 - Jul 2023
Kowloon City, HK

- Drove adoption of **Vue.js** inside the frontend team of ICO Limited, implemented the integration with the previous JS framework(**Backbone.js**) and working through migrating several parts of the main app.
- Developed ICO's internal suite of **Vue components** and **TypeScript libraries** that built up company's internal framework to quickly develop internal tools. The suite went from authentication to deployment, look and feel, and **frontend components**.
- Developed, configured and deployed a variety of portals and UI Applications of PE using pure **HTML**, **CSS** and **JavaScript**.
- Introduced a previously developed **AI**(**GPT3.5/4**) solution as a standalone SDK using **React** which led the acceleration of the development lifecycle.
- Reduced the bridge communication between **React** and **Native layer** to increase the performance and worked on **Search Engine Optimization**.
- Built several **Service Tools** for ICO Limited, such as monitoring and alert tool for Amazon Seller, copy-paste web manager, cookie switching extension, and a **Zapier** tool for integrating custom controls and populating fields.
- Developed and deployed ICO's Solidity contracts on **Ethereum blockchain** using **Node.js** as well as a custom **React** frontend with **Web3.js** to publish and execute contracts on test and main networks.
- Designed and implemented server-side **REST APIs** using **Node.js** and **Express.js.**
- Leveraged expertise in **Apollo GraphQL**, **Vue.js**, **D3.js** and **REST APIs** to create insightful charts for clients that improved optimization and reduced loading times.
- Worked on an **MVP** for **niche protocol** with **Django REST framework**, utilizing a proxy key signature scheme that was generated following the Schnorr signature algorithm on the **EVM** account's underlying address private key.
- Implemented automated payments with **Stripe** by creating a **GraphQL** endpoint that automatically calculates the amount owed to the user and pays them.

Skills: Vue.js, Vuex, Vuetify, Backbone.js, TypeScript, GraphQL, Django REST framework, REST APIs, Node.js, Express.js, SEO, GPT3.5/4, Alpine.js, WebRTC, Canvas

Software Engineer | Zencode   Dec 2015 - Jan 2018
Hong Kong SAR, HK

- Developed an airline **pricing aggregator** using **Vue.js** and **Django**. The application would query a number of different sources for typical air itineraries using a **multi-threaded architecture** and compile the results for human consumption.
- Responsible for analyzing various **cross-functional**, **multi-platform** applications systems enforcing **JavaScript best practices** and provided guidance in making long term architectural design decisions.
- Converted several applications to **microservice architecture**, communicating between services using **REST APIs**.

- Boosted the core processing engine with an innovative and complex frontend of the order of 10,000 lines of code. Enabled it to sync a 10MB document in real-time between **IndexedDB**, multiple open browser tabs, and the server largely using **RxJS**.
- Conducted the migration of the financial service to modern **AWS architecture** utilizing **Lambda**, **AWS CDK**, **S3**, **API Gateway**, and more.
- Built multiple **GraphQL** endpoints on **Hasura**, as part of developing web-based application for in-app logic calculations. Used **Django** framework.
- Worked on Zencode's highly immersive **Data Science** CRM software involving Data Manipulation & Visualization**, Web Scraping**, **UI, SQL,** Unix Commands**, MySQL** and **GraphQL**.
- For user accounts, utilized a **JWT** assisted **ACL** over **GraphQL** with a separate auth server **Microservice**, and implemented hardware wallet support.
- Built **CI pipeline** with **Jenkins**, established engineering practices, and participated in the product definition with product managers and company directors at the client site.
- Audited a complex **Node.js React/Redux** web application to identify security concerns and performance issues. Recommended steps to automate deployments in **Azure** and managed pull requests in **Git**.

Skills: React, Angular.js, Node.js, Django, Microservice architecture, RxJS, IndexedDB, AWS Lambda, Jenkins, XML, REST APIs, Highlight.js, GCP, Jest

Staff Web Developer | Homage

Apr 2011 - Dec 2015

Singapore

- Worked on **Homage**'s **ICW** which is pharmaceutical material handling system for Amazons' warehouses.
- Introduced **React** when it's first released in 2013 and built a web application for the delivery of **clinical/medical practice** data across the facilities.
- Responsible for developing web based extensible admin panel to manage real time hospital data access and web interface to manage booking and bill payment.
- Generated Use case diagrams, Class diagrams, and Sequence diagrams using Rational Rose.
- Implemented responsive user interface and standards throughout the development and maintenance of the website using the **HTML**, **CSS**, **JavaScript**, **Bootstrap** and **jQuery**.
- Created and maintained **XML** documents and support functions for data transmission.
- Drove distribution and fulfillment productivity for Homage by **rearchitecting to cloud.**
- Implemented the database connectivity using **JDBC** with **MySQL** database as backend.
- Worked with frontend team for creating own HTML elements for building a companied website which is an open source project.

Skills: HTML/CSS, jQuery, Bootstrap, React, XML, EJB, Struts, JDBC, MySQL, W3C standards

Education

2011, Bachelor of Technology – Btech, Information Technology
Singapore University of Technology and Design (SUTD)