

Skyler Fu

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Personal Introduction

I'm currently working as a Senior Front-End Development Engineer at Alibaba - Amap (Gaode map), with 5 years of experience in we b front-end development, including 2 years of experience in WebGIS graphics development. During my two years at Amap, I mainly w orked on WebGIS graphics development and actively contributed to the research and development of Amap's GIS render engine. This i nvolved working on 3D data production services, tile access services, custom data transmission protocol A3DTile, and the Unity map r endering engine SDK.

I'm looking for a *remote* senior frontend engineer job, and it would be even better if it involves working with WebGL and Three.js. And here is my skill list:

Frontend: TypeScript, React.js, Vue.js, WebGL, Three.js, Unity

Backend: Node.js, Next.js, Nest.js, Egg.js, Koa.js Database: MySQL, PostgreSQL, MongoDB, Redis



2021.4-2023.8





Senior Front-End Engineer

Front-End Development

1. GeoHUB Geographic Data Management Platform

1) Using React.js for UI, amap.js for map rendering, one Node.js as BFF, and another Node.js as backend service, with giankun.js as a micro-f rontends framework. 2) Support interactive vector graphics, drawing, and editing; MVT (Mapbox Vector Tiles) interaction and rendering; history tracking, undo, redo; GIS spatial calculations; data uploading and downloading.

2. AMapReact: A component library for AMap JavaScript API

The React version of AMap JavaScript API, enabling users to develop map applications in a declarative way.

3. LocaReact: A component library for AMap Visualization JavaScript API

The React version of AMap Visualization JavaScript API, allowing users to develop map visualizations in a declarative way.

4. Low-Code Platform Component Library

Built a component library using git subtree + monorepo structure, to maintain low-code components collectively; developed low-code compone nts for AMapReact and LocaReact.

WebGIS Development

1. Loca.js: AMap Visualization JavaScript API (https://lbs.amap.com/api/loca-v2/intro)

Contributed to Shader multi-light capability, incremental data source construction, text labeling, and daily issue fixing; Explored the use of Loca

2. Amap.js AMap JavaScript API (https://lbs.amap.com/api/jsapi-v2/summary)

Contributed to Editor/MouseTool merge, map visualization configuration VisualPlugin, and fog effect for Three.js objects when rendering with a map.js; Explored the implementation of A3DTile rendering in amap.js.

3. Data Visualization Dashboard for National Day Travel Season in 2021/2022

Developed animation timeline library to facilitate timeline arrangement for multiple cities, scenes, and layers; worked on data visualization for th e dashboard.

Unity GIS Engine Development

1. A3DTile Custom Data Transmission Protocol

1) Developed a custom data transmission protocol considering data security and transmission performance requirements 2) Designed A3DTile data parsing, supporting PB compression, quantization compression, batch and feature—based data organization; supported on—demand comp osition and dynamic delivery of 3D data.

2. A3DTile Data Production and Tile Access Services

Developed production and access services using Node.js + BullMQ + OSS + Redis to produce roads, area polygons, 3D buildings, and trees in vector base maps; Used BullMQ for task scheduling, OSS for data storage, and Redis for tile caching.

3. Unity WebGL Map Rendering Engine SDK

1) A WebGL map rendering engine SDK based on Unity URP rendering pipeline, featuring rendering of vector and satellite base maps and run ning on WebGL with the use of WebWorker for multithreading. 2) Developed fundamental features like A3DTile vector base map rendering, qu adtree construction and LOD optimization, and camera animation; Created a JS Plugin for multi-threaded data processing in Unity WebGL; De veloped C# api-generator and JS api-container as communication bridges between C# and JS, serving as the underlying infrastructure for Unity JS SDK.

2020.4-2021.4



Meituan

Front-End Engineer

Front-end Development

1. Wanxiang, Machine Learning Platform

1) A machine learning pipeline orchestration platform, configuring the upstream and downstream relationships of data sources and data artifact s, supporting online Python script writing. 2) Participated in pipeline orchestration, front–end implementation of data source configuration, and in troduced vscode as an online script editing platform.

2. WebIDE Capabilities for Machine Learning Platform

1) This project mainly addresses how to deploy vscode on the web and does not directly involve WebIDE development work. 2) Created custo m DockerFile to deploy code—server; Developed a Node.js BFF (Backend for Frontend) for permission authentication and Docker container management; Solved some issues related to code—server (#1920).

2018.6-2020.4



Xiaomi

Front-End Engineer

Front-end Development

1. User Growth Analysis System

1) An instant analysis system comparable to SensData. The backend adopts OLAP technology to preprocess T-1 user data, and the front-end filters and presents data through charts. 2) Developed UI/UX interface using Vue.js + ElementUI; Utilized ECharts for data visualization; Create d the front-end single sign-on SDK.

2. BigData Dashboard Reporting Platform

1) A data dashboard platform based on OLAP technology for preprocessed data, allowing users to customize dashboard content and layout2) Developed UI/UX interface using React.js + Antd; Implemented custom layouts using react–grid–layout; Solved issues related to nested state updates.

3. Java & Scala Development (Internship)

Java Interface Development Developed RPC interfaces using Java + Thrift, gaining initial knowledge of MySQL, JDBC, Spring MVC, and JVM. Spark Big Data Analysis Performed big data analysis using Spark for creating daily data report emails, gaining initial knowledge of Hadoop, MapReduce, Hive, and OL AP technologies.



Community

Links

- github: https://github.com/fxxjdedd

- 知乎: https://www.zhihu.com/people/da-da-92-27

- 掘金: https://juejin.cn/user/4019470240849966

OpenSource

1. simpe-map (https://github.com/fxxjdedd/simple-map)

A small front-end project designed for sharing, fully implementing all the capabilities of satellite maps, including satellite image rendering, map i nteractions, tile loading, and other basic functionalities.

2. cache-loader-hash (https://github.com/fxxjdedd/cache-loader-hash)

A fork from cache–loader, used to address the issue of invalidated compilation cache based on mtime during CI/CD deployments by adopting a hash–based approach.

3. my-awesome-works (https://github.com/fxxjdedd/my-awesome-works)

A collection of my graphics works.



2014.9-2018.6

Shandong University of Finance and Economics

Information System (CS Related)



Works





Here is my-awesome-works repository:

https://github.com/fxxjdedd/my-awesome-works