

wangyongtao

Languages

Python



Golang



TypeScript/JavaScript



Skills

System Design



scale system, distributed system, microservice

Problem-solving



patience, critical thinking, creativity

Multitasking



Time management, organised, prioritising tasks

Interests

Coding

Personal Host

Podcast

Reading

Psychology

Photography

Hiking

Camping

Snowboarding

Summary

With a strong educational foundation in Software Engineering, including a Master's degree from IIT, and a professional journey spanning over 6 years, I specialize in backend development, with proficiency in Golang, Python, and TypeScript/JavaScript. I have a deep understanding of cloud infrastructure management, having worked with Aliyun and AWS, leveraging services such as Lambda, EKS, ECS, ECR, EC2, SSM, Route 53, and ElasticCache.

Beyond my formal qualifications, I'm an enthusiastic server enthusiast who maintains a personal Kubernetes cluster that stretches across various cloud providers and local servers. This not only keeps my technical skills sharp but also reflects my unwavering commitment to continuous learning and innovation.

Experience

Roboteam Home Technology (Shenzhen) Co.,Ltd

2021/10/18-2023/06/30

Shenzhen,China

Senior Software Engineer

Design and implement the backend API for Temi Center's online subscription service with Stripe

Maintain and implement authentication and authorization plugins for HiveMQ using Java

Design logging, authentication, tracing middlewares for Express.js in TypeScript

Debug network and performance issues for cloud services.

Huafu Information Inc.

2020/06 – 2021/10/15

Shenzhen,China

Golang Developer

Design architecture of project based on gRPC framework

Technical research, product requirement analysis, technical feasibility study

Build middlewares and basic components like, user authentication, authorization and logging

Build docker images , makefile, docker-compose for local development and production of back- end.

M&S Systems Designers Inc.

2019/05 – 2020.05

Shenzhen, China

Senior Python Developer

Design the architecture of project based on feedback from devops and tester

Build a connection module for communication between master and slave machine

Create a service to manage distributed priority tasks based on configuration per machine

Docker images for local development of frontend and backend, and production. Monitor realtime status with websocket.

Unify the workflow of development and production releasing, testing, initial data, production data.

Build a workflow to let different roles in test team manage their own tasks, create ticket, assign task owner, add information for deployment, submit testing and security report, audit operation, i.e.

Unity Labs

2018/06-2018/12

Guangzhou, China

Lead Engineer

As the first employee help CTO to build the development team, mentor, interview.

Delegate CTO for customer communications and technical analysis of requirements.

Design architecture based on the feedback from client.

Arrange tasks between team members, estimate timeline of whole project.

Make the key decisions when choosing framework or languages for mobile, frontend and backend.

Create a few base Docker images for local development of frontend and backend.

Unify the workflow of development and production releasing.

Build backend for crypto wallet with Django Rest Framework, processing and verify payment between decentralized blockchain wallet and centralized wallet.

Create distributed Celery workers to process kinds of asynchronous tasks

Setup load balancer for the backend api with Traefik to load balance traffic and secure API

Build scheduled tasks with AWS Lambda

OOCLAB

2016/12-2018/5

Beijing,China

Python Developer

1. SaaS for E-commerce customer

Design a distributed crawler to scrape items with a proxy pool from JD (One of the largest on- line retailers in China).

Store the data into PostgreSQL and ElasticSearch for text searching.

Choose NSQ as task queue and message queue to handle large items.

Choose Redis as cache and kv database to store crawler status.

Create the backend API for frontend to manage/monitor proxy pool, crawlers.

2. ERP/CRM

Analysis customer requirements, help product manager to design logic flow of whole product

Design a role-based access control service (RBAC) for a large and complicated ERP/CRM microservice system with Django.

Choose JWT as authenticate method for security and decouple.

Providing restful API to frontend and other services, cooperate with product manager and frontend developer

Create notice microservice to generate sms verification code and verify it. And let other services to send, edit, search, receive, delete notifications cross the whole system

Build other related module, such as customer, finance, account, paybills, and exhibitions.

Beijing Makerspace

2012.11 - 2015.12

Beijing, China

Project Manger & Course Designer

Design courses for members with Arduino, Raspberry Pi, Intel Gallileo,

Teach both kids and adult to hack with hardware and how to use maker machines.

Arrange meetups for local makers community, both hardware and software.

Freelance Projects

Distributed crawlers with Kuberntes

Fullstack developer

Set up a Kubernetes cluster using AWS EKS and configure security groups and firewalls. Develop crawlers in JavaScript, Golang, and Python.

JavaScript is primarily for driving a headless browser to render JavaScript-heavy pages and bypass JavaScript encryption, Python for data analysis, and Golang for efficient HTML page and RESTful API crawling.

Implement ELK to collect logs and monitor the cluster. Construct a customized metrics exporter for Prometheus to monitor tasks in real-time. Implement a mechanism to remove unhealthy and stale nodes by listening to events and querying metrics through the Kubernetes API.

Design the crawler to be resilient to the sudden termination of SPOT instances to optimize costs. With approximately 160 SPOT instances, the total CPU and memory amount to 1500 cores and 2.7 TB, respectively.

kubernetes, aws eks, Golang, Python, JavaScript, NodeJS, ELK, Prometheus

General webpage parser

Fullstack Developer

Build API server with koa2.js and use jwt as authentication

Render dynamic content with headless chrome.

Extract content with Cheerio, and parse DOM.

Setup rules to extract author, publish time with tags and selectors.

Design a text density algorithm to extract main content from html page.

Output pure text and markdown style content to other services.

nodejs, javascript, koajs, headless chrome

bestremotejob

Fullstack Developer

Build spiders with Scrapy, that is running in AWS Lambda.

Create crontask with containers in AWS ECS to run extracting keywords tasks like, language, tools, skills.

Store data into PostgresSQL, and build search index in Elastic Search for text searching

Build a frontend website with Vue.js. Render dynamic pages into static both for spiders and search engine to be indexed easily by Google, Bing, etc.

scrapy, aws lambda, aws ecs, postgresql, elastic search, vuejs, nodejs

Education

Illinois Institute of Technology

2021/08-2022/12

Software Engineering

Masters Degree

3.9/4

<https://www.iit.edu/>

Hainan College of Vocation and Technique

2007/09-2010/06

Horticulture

Diploma

COMPETITIONS EXPERIENCE

1.IJCAI-18 Alimama Sponsored Search Conversion Rate(CVR)

2018

Prediction Contest

China

Top 15%

Use time binning, time differences, label count as feature engineer methods, and use logistic regression and XGBRegressor to predict the ads click probability.

data science, data minning, python, XGBRegressor