何梓弘

网络工程师 · C/C++ 开发

联系方式

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教育经历

茂名职业技术学院
人工智能应用技术
全日制大专 · 2024.09 – 2027.06

证书

全国计算机等级考试一级
2022.09

CCNP 企业网络工程师
Cisco · 2024.01

专业技能 SKILLS

企业网络与设备

能独立完成政企与校园网开局、割接与故障定位：VLAN 划分与 Trunk 干道、STP/RSTP/MSTP 防环、EtherChannel 链路聚合（LACP/PAgP）、静态路由与 OSPF 多区域、三层交换、HSRP/VRRP 网关冗余、ACL 与 NAT/PAT、DHCP Snooping、动态 ARP 检测、端口安全与 802.1X 接入认证；能按设计方案逐台核对配置，输出端口对照表与割接记录。具备 CCNP 体系的理论基础：BGP（EBGP/IBGP 与选路策略）、EIGRP、GLBP、VTP、WLAN 组网（WLC/AP、SSID、WPA2/WPA3）、QoS 分类标记与拥塞管理、IPv4/IPv6 双栈与 OSPFv3、PPP/CHAP/PAP、GRE 隧道、IPsec 与 DMVPN、StackWise/VSS 堆叠、SNMP/Syslog/NetFlow/NTP 运维监控

编程语言与内存

C/C++：掌握基本语法、面向对象（封装、继承、多态）与模板编程、STL 常用容器的使用；了解动态内存管理、智能指针与 RAII 思想，了解容器与空间配置器的实现原理。TypeScript / JavaScript：在项目中用于 Taro 小程序、React 与 Next.js 开发。Java：在即时通讯后端项目中用于传输层改造与 Repository 层拆分

数据结构与算法

了解常用数据结构，如顺序表、链表、栈、队列、堆、二叉树、哈希表等；了解常见排序算法，如冒泡、插入、选择、希尔、快速、归并、堆排序；了解常见搜索结构，如 AVL 树、红黑树、B 树、跳表、倒排索引、位图、布隆过滤器的设计思路

设计模式与数据库

了解常见设计模式，如单例、工厂、策略、状态、装饰器、观察者、代理模式；使用过 MySQL 的增删查改、索引与事务机制，以及 PostgreSQL 的触发器、事务级 advisory lock 与 RLS 行级安全策略；使用过 Supabase 的 Edge Functions 与 Realtime、Cloudflare D1；了解 Redis、Nginx 的常见用法

操作系统与 Linux 系统编程

日常使用 Linux 常用命令与 Git，使用过 Vim、GCC、GDB 与 Makefile 编写；了解多线程、多进程编程，了解进程同步与互斥和信号处理机制；了解进程间通信机制，如管道、消息队列、信号量、共享内存等

计算机网络与 Linux 网络编程

了解 TCP/IP 协议栈与数据封装分用过程；了解 TCP、UDP、HTTP 等常见网络通信协议；了解 Linux 下 Socket 编程与阻塞、非阻塞、信号驱动、多路复用、异步等 I/O 模型；了解 select、poll、epoll 多路复用 I/O 的使用方式与差异

实习经历 EXPERIENCE

广州市通犊计算机有限公司 | 售后工程师（实习） 2024.02 – 2024.09 · 广州

- **现场开局**：按设计方案完成政企与校园网 VLAN 划分、三层路由与安全策略配置，逐台核对交换机、路由器并输出端口对照表；差异项当场整改，割接后复测 VLAN 放行与路由条目，跟进至项目验收。
- **故障定位**：从丢包率、端口协商状态与路由表逐层缩小范围，处理配置冲突与端口速率/双工不匹配；链路恢复后复测转发与丢包率，并把处理过程整理成常见故障条目。
- **工单处理**：电话与远程桌面受理客户工单，按故障等级登记处理人、处理时长与结论；超期工单升级反馈，未结案工单逐条跟进至关闭，处理记录可回溯。
- **交付文档**：归档站点配置、端口对照表、拓扑说明与割接记录，形成可检索的维护底稿与交接清单；交接时按清单逐项核对，后续维护与故障回溯可直接调阅。

项目经历 PROJECTS

个人博客网站 clannad.top

Next.js 16.3 · Cloudflare Workers · D1

个人博客网站 clannad.top：Next.js 16.3 一套代码产出静态导出与 OpenNext SSR 两套部署；大陆文档请求由 Worker 302 到 EdgeOne，境外直出，注入 CSP、HSTS 等安全头，旧链 308 到新路径。留言板运行于 D1，处理留言、评论、表情与图片，图片 base64 存 D1、列表只回 id、正文懒加载，以蜜罐、单 IP 限频与 MIME/体积校验防滥用。Velite 的 23MB 元数据拆到构建期后，Workers 包体降至 gzip 5MB。

新职指南校园点歌微信小程序

Taro 4.1 · React 18.3 · TypeScript 5.9

学生端提交、管理端审批排播，结果经微信订阅消息回推。Taro + React 一套代码编译到小程序与 H5；每周点歌数由 PostgreSQL 触发器按用户、曲目和自然周限额，并用事务级 advisory lock 防止并发重复提交；权限由 RLS 策略约束，Edge Function 按 60 秒 30 次限流。核心流程有自动化测试覆盖，行覆盖率 81%，tsc 与 Biome 通过。

Encrypted for Android 即时通讯后端

Java · libsignal · Supabase

在 Telegram Android 11.4.2 源码上替换消息后端：不改 UI，在传输层拦截 sendRequestInternal，向上仍返回原生 TLRPC 对象，聊天、群组、已读、表情回应全部迁至 Supabase。自建 94 个 Java 文件，按账号装配 11 组 Repository；消息经 libsignal 做端到端加密，每台接收设备各一份密文，服务端按 device_id 分发。401 由拦截器单飞刷新令牌后重放；Realtime 只做唤醒，正文走 REST。

HE ZIHONG

Network Engineer
C/C++ Development

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EDUCATION

Maoming Polytechnic
Artificial Intelligence Application Technology · Full-Time Associate Degree
Sep 2024 – Jun 2027

CERTIFICATIONS

National Computer Rank Examination Level 1
Sep 2022

CCNP Enterprise · Cisco
Jan 2024

Skills 01

Enterprise Networking	VLAN segmentation with trunk links, VTP, STP/RSTP/MSTP loop prevention and EtherChannel (LACP/PAgP); static routing, multi-area OSPF, EIGRP, BGP (EBGP/IBGP and path selection) and Layer-3 switching; HSRP/VRRP/GLBP gateway redundancy, ACL, NAT/PAT, DHCP with DHCP Snooping, Dynamic ARP Inspection, port security and 802.1X; WLAN (WLC/AP, WPA2/WPA3) with QoS marking and queuing; IPv4/IPv6 dual stack and OSPFv3; PPP/CHAP/PAP, GRE tunnels, IPsec and DMVPN; SNMP, Syslog, NetFlow and NTP monitoring; StackWise/VSS stacking; switch and router commissioning plus fault isolation
Languages & Memory	C/C++ syntax and OOP (encapsulation, inheritance, polymorphism, templates); C/C++ dynamic memory management, smart pointers and RAII; STL container usage with container and allocator internals
Data Structures & Algorithms	arrays, linked lists, stacks, queues, heaps, binary trees and hash tables; bubble, insertion, selection, shell, quick, merge and heap sort; AVL trees, red-black trees, B-trees, skip lists, inverted indexes, bitmaps and Bloom filters
Patterns & Databases	singleton, factory, strategy, state, decorator, observer and proxy patterns; MySQL CRUD with indexes and transactions; internals and usage of Redis, Nginx and Flink
OS & Linux Systems	common Linux commands and tools (Vim, GCC, GDB, Git) with Makefile; multithreading and multiprocessing with process synchronization, mutual exclusion and signal handling; inter-process communication via pipes, message queues, semaphores and shared memory
Networks & Sockets	TCP/IP stack with data encapsulation and demultiplexing; TCP, UDP, HTTP and other network protocols; socket programming on Linux; blocking, non-blocking, signal-driven, multiplexed and asynchronous I/O models; select, poll and epoll multiplexing

Experience 02

Guangzhou Tongyuan Computer Co., Ltd. | Feb 2024 – Sep 2024 · Guangzhou

After-Sales Engineer (Internship)

- **On-site commissioning:** deployed VLAN segmentation, Layer-3 routing and security policies at enterprise and campus sites; verified every switch and router, produced port maps and corrected deviations on the spot; re-tested forwarding after cutover through acceptance.
- **Fault isolation:** narrowed link faults layer by layer using packet loss, port negotiation state and routing tables; resolved configuration conflicts and speed/duplex mismatches; re-tested forwarding and packet loss after recovery and turned recurring cases into a fault catalogue.
- **Ticket handling:** took customer tickets by phone and remote desktop, logging assignee, duration and resolution by severity; escalated overdue tickets and followed open ones to closure.
- **Delivery documentation:** archived site configurations, port maps, topology notes and cutover records into a searchable maintenance base and handover checklist, checked item by item at handover.

Projects 03

Xinzhi Zhinan Campus Song-Request WeChat Mini-Program

Taro 4.1 · React 18.3 · TypeScript 5.9

Xinzhi Zhinan campus song-request mini-program: students submit, admins approve and schedule, results push through WeChat subscription messages. Taro + React compiles to the mini-program and H5; a PostgreSQL trigger caps weekly requests per user, song and week, with an advisory lock blocking duplicate submissions. RLS constrains access; an Edge Function limits 30 requests per 60 seconds and issues random passwords. 23 test files / 428 cases pass at 81.22% line coverage; tsc and Biome are clean.

Encrypted for Android Messaging Backend

Java · libsignal · Supabase

Replaced Telegram for Android 11.4.2's messaging backend without touching the UI: a transport-layer interceptor takes over sendRequestInternal and still returns native TLRPC objects, while chats, groups, read receipts and reactions move to Supabase. 94 self-written Java files assemble 11 repository groups per account; libsignal provides X3DH/PQXDH + Double Ratchet, with a separate ciphertext per receiving device and server-side routing by device_id. The interceptor refreshes tokens single-flight on 401; Realtime only wakes the client, while bodies still come over REST.

Personal Blog clannad.top

Next.js 16.3 · Cloudflare Workers · D1

Personal blog clannad.top: one Next.js 16.3 codebase yields static export and OpenNext SSR; mainland document requests are 302-redirected by an edge Worker to EdgeOne, others hit the origin; CSP/HSTS headers are injected and legacy links 308-redirected. The guestbook runs on D1 for messages, comments, reactions and images — images stored as base64, lists return ids only, bodies load lazily — with honeypot, per-IP rate limiting and MIME/size checks. Splitting Velite's 23MB metadata from the build cut the Workers bundle to 5MB gzipped.