

Tran Quoc Huy

Software Developer

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OBJECTIVE

I possess a deep-seated passion for programming, coupled with a tenacious "can-do" attitude that fuels my commitment to self-learning. I invest a substantial amount of time in actively contributing to the open-source community and building projects. This steadfast commitment has been pivotal in shaping my path as a software engineer.

Currently, I am actively seeking a full-time intern or fresher position to advance and apply my skills.

TECHNICAL SKILLS

Programming: C/C++, JavaScript/TypeScript, Python, Java, C#, Bash

Front-end: HTML/CSS, ReactJS, Android - Java

Back-end: NodeJS, RESTful APIs, Websocket, Webhooks

Embedded: Arduino, ESP-IDF

Databases: MongoDB, Firebase, MySQL

Deployment: Github Actions, Nginx, Docker, AWS

Tools: Git, Unix Shell, Postman, VS Code, Android Studio

Others: Linux OS, network administration

PROJECTS

Video meeting and messaging web app | *NodeJS, ReactJS, MongoDB, AWS (EC2,S3)* June 2023 - Present

- Created and configured the project, set up the development environment, and managed the AWS console (as a full-stack developer in a team of 2)
- Designed and developed RESTful API endpoints for CRUD operations with MongoDB and implemented user authentication with JWT
- Gained hands-on experience with front-end optimization techniques, e.g., code bundling, code splitting, lazy loading
- Utilized the video meeting and screen sharing features on the web browser through WebRTC
- Used the Socket.io library and MongoDB event watcher for the implementation of real-time content updating
- Implemented programs for user-generated media content transferring, access controlling with JWT, and AWS S3 pre-signed URLs
- Automated code-building and deployment processes with GitHub Actions, Docker, and Bash scripts
- Gained hands-on experience in configuring Nginx and setting up SSL, firewall, proxy
- **Live demo:** tranquochuy645.github.io/meeting_and_messaging_web_app
- **Github:** github.com/tranquochuy645/meeting_and_messaging_web_app

My personal homepage | *TypeScript, HTML/CSS, Vite, ReactJS, Github Pages* Dec 2022 - Present

- Achieved Lighthouse overall score of 99 (Performance: 97, Accessibility: 100, Best practices: 100, SEO: 100)
- Learned SEO and web performance optimization best practices
- Enhanced vanilla CSS skills (flexbox, SVG animation, keyframes, transition, media query)
- Gained hands-on experience integrating Github APIs
- **Live demo:** tranquochuy645.github.io

- **Lighthouse report:** tranquochuy645.github.io/assets/LighthouseReport.pdf
- **Github:** github.com/tranquochuy645/tranquochuy645.github.io

Linux shell greeting script | *Bash, C++*

Jan 2024

- Developed a program that greets the user every time they open a new Terminal, displaying useful system and network information
- Elevated my proficiency in C++ by implementing a range of optimization techniques, resulting in consistently surpassing the execution time of other pre-existing shell-greeting programs with similar functionalities
- Wrote installer and uninstaller scripts for convenient use
- Devised a method involving a dispatcher script automatically triggered by the network manager service, this innovative approach fetches network information from a public API and caches it locally, ensuring optimal execution time for the main script
- Deepened understanding of the Linux OS and acquired system monitoring skills
- **Github:** github.com/tranquochuy645/faffetch

Smarthome with ChatGPT | *Android (Java), ESP32-IDF, Firebase, ChatGPT, Google Speech*

July 2023

- Developed an Android app for visually or verbally managing/controlling devices in the smart home by integrating ChatGPT and Google Speech services
- Utilized ChatGPT's function calling feature to control IoT devices, making the smart home intelligent with the power of ChatGPT
- Implemented a WiFi and user-credentials configuring method for headless IoT devices by utilizing the ESP Touch protocol
- While programming for the ESP32 microcontroller as a smart device, I gained expertise in working with Firebase real-time database REST endpoints, and specifically implemented a real-time data event listener without external libraries (pure C language and the HTTP client)
- **Demo video:** tranquochuy645.github.io/assets/videos/ChatGPT_smart_home_project/demo_video.mp4
- **Github:** github.com/tranquochuy645/smarthome_with_chatGPT

EDUCATION

HCMC University of Technology and Education

July 2020 - Present

Undergraduate Embedded Systems and Internet of Things

COMMUNICATION

Vietnamese

Native language

English

Comfortable in both spoken and written communication

TOEIC 625 (reading, listening)

2023