





# Tran Quoc Huy

Software Developer

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## OBJECTIVE

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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

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**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, GraphQL

**Deployment:** Github Actions, Nginx, Docker, AWS

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

**Others:** Linux OS, network administration

## PROJECTS

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**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 feature 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](https://tranquochuy645.github.io/meeting_and_messaging_web_app)
- **Github:** [github.com/tranquochuy645/meeting\\_and\\_messaging\\_web\\_app](https://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](https://tranquochuy645.github.io)
- **Lighthouse report:** [tranquochuy645.github.io/assets/LighthouseReport.pdf](https://tranquochuy645.github.io/assets/LighthouseReport.pdf)
- **Github:** [github.com/tranquochuy645/tranquochuy645.github.io](https://github.com/tranquochuy645/tranquochuy645.github.io)

- 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](https://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](https://tranquochuy645.github.io/assets/videos/ChatGPT_smart_home_project/demo-video.mp4)
- **Github:** [github.com/tranquochuy645/smarthome-with-chatGPT](https://github.com/tranquochuy645/smarthome-with-chatGPT)

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EDUCATION**HCMC University of Technology and Education**

July 2020 - Present

*Undergraduate Embedded Systems and Internet of Things***Specialized High School Nguyen Tat Thanh**

June 2017 - June 2020

*Specialized in Physics*

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COMMUNICATION**Vietnamese***Native language***English***Comfortable in both spoken and written communication*

TOEIC 625 (reading, listening)

2023