Nguyễn Hồng Quân

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Birthyear: 1987

Experience

Vocational

10/2020 – current

Principal Software Engineer, *EasyUni Sdn. Bhd.*, Kuala Lumpur, Malaysia
- ○ Build from ground up a mini-CRM SaaS platform for universities and agencies to use in student recruitment. Enable data synchronization with other in-house platforms.
- ○ Develop a SaaS platform (fairwiz.com) for organizing virtual event, targeting universities and vocational business.
- ○ Modernize software stack for frontend, converting from traditional backend-rendered UI to SPA using Vue 3 + TypeScript.
- ○ Build from the beginning new projects by business needs. Designed the database models, decided the tech stack, implemented the base for the team to follow.
- ○ Implement the feature to synchronize data across those softwares.
- ○ Setup CI/CD for all the projects.

03/2016 – 12/2024

Co-founder & CTO, *AgriConnect Digital Agriculture Ltd*, Ho Chi Minh City, Viet Nam
- ○ Design software architecture of the automatic growing house for mushroom, vegetable, swiftlet house.
- ○ Main coder for the project. The software can run both on cloud server and embedded computer like BeagleBone. Implemented with Python and Rust, the software is highly efficient.
- ○ Setup CI/CD tools for the projects, using Ansible, GitLab CI, Docker.
- ○ Design a system to manage scattered local servers with WireGuard, an innovative (at the time) VPN software.
- ○ Develop embedded software for sensor nodes, which use Arduino, ESP8266, ESP32, in C, and then Rust language.
- ○ Notable writing: "Oxy hóa" nền tảng IoT nông nghiệp bằng Rust.
- ○ Contribute code to various open source software projects.
- ○ Talk at FOSSASIA Summit, OpenTech Summit, to share experience in developing software for automatic mushroom farm.

08/2020 – 11/2020

Freelance
- ○ Develop a solution to control a POS machine to make this machine a "worker" for an online sale website. The website owner is just an agency, and the actual sale action is done by the POS machine.

01/2019 – 07/2020	**Senior Software Developer**, *Sunshine Tech*, Ho Chi Minh City, Viet Nam

- ○ Design architecture, select technologies and implementation approach for the company software projects.
- ○ Design database, API, write code for backend part.
- ○ Develop a KYC system for internal use: Extract personal info from ID card, face recognition, liveness detection.
- ○ Introduce professional way of software development to the company: writing unittest, writing documentation, creating device simulator tools, breaking code apart to libraries.
- ○ Build DevOps process, setup CI/CD, testing automation with Docker.
- ○ Train teammates with new technologies, new tools.
- ○ Start some Free and Open Source projects under company name.

05/2016 – present	**Member**, *FOSSASIA, an organization about open technology*

- ○ Student mentor for Google Summer of Code, 2016, 2017, 2018.
- ○ Contribute to SUSI Smart Speaker project: Review code; redefine the code base, to make it stable (before I join, even the install script doesn't work); reduce installation size; make script to build OS image automatically.
- ○ Have some talks on behalf of FOSSASIA to introduce open source software and programming.

05/2013 – 02/2016	**Software Developer**, *EasyUni Sdn. Bhd.*, Kuala Lumpur, Malaysia

- ○ Develop company-owned website (www.easyuni.com). Implement various features for the website, according to business need.
- ○ Lead development of Coach and Grow Program internal web platform.

02/2012 – 04/2013	**Software Developer**, *MBM International*, Can Tho, Viet Nam

- ○ Join OpenSC, an open source smart card library, take part in improving OpenPGP card support.
- ○ Develop several modules for OpenWrt, a Linux-based firmware for wifi router.
- ○ Develop a pairs of web app + Android app.
- ○ Maintain customer's website (www.expat-advisory.com).
- ○ Talk at GNOME Asia Summit 2012, Hong Kong.

08/2010 – 01/2012	**Software Developer**, *FPT Software*, Ho Chi Minh City, Viet Nam

- ○ Took part in an embedded software project about NFC software stack for NFC chipsets.
- ○ Wrote several facility tools (programs) to increase productivity.

Personal FOSS projects

CoBang, *QR code scanner desktop app for Linux*
github.com/hongquan/CoBang

VietnamProvinces, *Library to provide list of Vietnam administrative divisions (tỉnh thành, quận huyện, phường xã)*
sunshine-tech/VietnamProvinces

Vietnam provinces online API
https://provinces.open-api.vn

Defity, *Speedy Python library to determine MIME type of file*
https://github.com/hongquan/Defity

Thunagen, *Google Cloud function to generate thumbnail for images in Google Storage*
github.com/sunshine-tech/thunagen

BienSoXe, *Library to parse and validate Vietnamese vehicle place*
github.com/sunshine-tech/BienSoXe

CurliPie, *Convert cURL command to HTTPie*
https://github.com/hongquan/CurliPie

KikiAuth, *Server-free captive portal for Wifi, login with social network*
github.com/hongquan/KikiAuth

Miscellaneous

FOSS, *Contribute bug fixes and features to a lot Free and Open Source Software projects*

Publication

2013 **Instant Geany IDE**, *Packt Publishing Ltd*
https://www.packtpub.com/application-development/instant-geany-ide-instant

Education

2004–2009 **Mechatronics**, *Ho Chi Minh City University of Technology*
PFIEV program (Programme de Formation d'Ingénieurs d'Excellence au Vietnam).
Graduation thesis: Study on Design of 2D Ocean Wave Maker
○ Collect related theories in Fluid Mechanics and differential equations describing water wave created by the wave maker.
○ Create a prototy machine.

Languages

English Intermediate   *Used to live in Malaysia*

Computer skills

OS Linux   *Embedded system, desktop and server*
Programming Python, Rust, TypeScript, C, Lua
Database PostgreSQL, Redis, EdgeDB, Google Firestore, TimescaleDB, InfluxDB
Tool Git, Ansible, Docker, WireGuard, Nginx, Systemd

Voluntary Activities

2020 Wild animal conservation
2017 – 2019 Sea turtle conservation
2007 Blood Donation
2006 Blue Summer Volunteer Campaign

Interests

Reading History, culture and programming languages
Travel
Write Blog about new techniques in software developments and Asian culture.