

Farhan Poh-Asae

Software Engineer

Software Engineer with 4 years of experience in software development, programming, IoT, Embedded system Front-end and Back-end in various project.



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EXPERTISE

Full stack developer

Software Engineer

Embedded System and IoT developer

Web developer

PROGRAMMING



Javascript ES5-2020



TypeScript



Shell Script



C/C++



Python



Java



Golang



HTML/CSS



Lua script

TECHNICAL SKILLS

Back-end technology

NodeJS, GraphQL Server, NextJS, ElasticSearch, Redis, MongoDB, DynamoDB, SQLite, mariaDB

Front-end technology

React, Vue2, GraphQL Client, Unity Game Engine

Operation

Docker, Bitbucket CI, GitLab CI, AWS CodeDeploy

Cloud

AWS EC2, IoT Core, Lambda, CloudFront, S3, DynamoDB etc.

Embedded system

Espressif, ATMEGA, ATSAM, Raspberry Pi

SOFT SKILLS

Fast learning

Problem-solving

Flexibility

Adaptability

Teamwork

Research

HARD SKILLS

Linux

Networking

Programming

IoT Maker

Electronics

Typing 75 wpm

Security

EDUCATION

Computer Engineering Mahidol University

05/2012 - 05/2015

Qualification

- First class honour with GPA 3.64

WORK EXPERIENCE

Software Engineer

LTMAN Co.,Ltd.

02/2018 - 08/2018

Thailand well-known social media platform Blockdit

Achievements/Tasks

- Experienced with many modern back-end technologies such as GraphQL, ElasticSearch, Redis etc.
- Implemented Per request, Over the air image resizing and image caching using AWS lambda and CloudFront.
- Experienced with ELK Stack Logging service using ElasticSearch and Kibana.
- Implemented and design full text search on enormous articles using ElasticSearch.
- Experienced with highly dedicated code base with intensive code review which always retains expressiveness and cleanliness.
- Implemented multiple features during working session.
- Experienced with granular automated testing using mocha.

GROBOT 4 years of development smart farming device.

Agrointelligent Co.,Ltd.

05/2015 - Present

Agriculture technology company, Smart and precise farming, IoT device.

Achievements/Tasks

- Experienced with Raspberry Pi Zero W to use NodeJS(TypeScripts) for local web service, High level feature and Serial port communication.
- Experienced with GraphQL query language framework for both back-end and front-end.
- Implemented real-time web application using GraphQL subscription.
- Experienced with ESP32 32-bit dual core micro-controller using C/C++ for real-time and implemented low level features.
- Implemented air Sensors, electrical conductivity and pH sensor module using master-slave RS-485 with ModBus RTU protocol.
- Implemented SPA using ReactJS, Redux, GraphQL client.
- Experienced with AWS EC2 instance to deploy code base in docker container.
- Implemented logging service using ElasticSearch and Kibana.
- Implemented web services using NodeJS with TypeScript, IoC container, GraphQL server and GraphQL subscription.
- Experienced with intensive optimisation for false tolerance system.

Contact: <https://avepha.me/personal/experience#smartgrobot>

Solution control device

Agrointelligent Co.,Ltd.

Achievements/Tasks

- Implemented solution control system using pH and conductivity sensor.
- Experienced with ATMEGA micro-controller using C/C++ for real-time and low level features.
- Experienced with Raspberry Pi 4 to use NodeJS(TypeScript)for local web service, High level feature and Serial port communication.
- Implemented SPA using ReactJS to display on 7" touch screen in kiosk mode.
- Designed and experienced with dual-core processor software on ESP32.
- Experienced with ESP32 32bit micro-controller using C/C++ for real-time and low level features.

Contact: <https://avepha.me/personal/experience#hanmo-control>

Hydroponic timer and solution controller

Agrointelligent Co.,Ltd.

Achievements/Tasks

- Implemented Timer control device for control water to the plants.
- Implemented solution control system using pH and conductivity sensor.
- Implemented Human machine interface with 16x4 LCD with 4 buttons using ATMEGA micro controller.
- Experienced with EEPROM CRUD using C/C++.
- Experienced with implementation of low level logic of water control.

WORK EXPERIENCE

Volume Measurement Network & Smart farming device

Agrointelligent Co.,Ltd.

05/2015 - Present

Achievements/Tasks

- Implemented local TCP server on ESP-32 as a master for multi-station unit.
- Experienced with Raspberry PI 3 to use NodeJS(ES6) for local web service, High level feature and serial port communication system.
- Implemented TCP client on ESP-32 as a slave for sending data from sensor units to main ESP-32.
- Implemented SPA using ReactJS with elegant bootstrap template clean UI.
- Experienced with strain gauge for measuring and logging water consumption.
- Implemented 16x4 LED with 2 buttons for HMI on each unit.
- Experienced with ESP32 32-bit dual core micro-controller using C/C++ for real-time and low level features.
- Designed and experienced with dual-core processor software on ESP32.

Full-function vertical hydroponic system in container

Agrointelligent Co.,Ltd.

Agriculture technology company, Smart and precise farming, IoT device.

Achievements/Tasks

- Implemented water circulation and carbon dioxide control in container.
- Implemented light control in hydroponics system.
- Experienced with Raspberry PI 3 to use NodeJS(ES6) for local web service, high level feature and serial port communication system.
- Experienced with ATMEGA2560 micro-controller using C/C++ for real-time and low level features.
- Implemented SPA using Vue2 to display on 10" touch screen in kiosk mode.
- Implemented multi-station sensors in container using RS-485 and modbus RTU.

Full-stack game engine developer

Alpha Wolf

07/2015 - 10/2015

Achievements/Tasks

- Implemented real-time visualisation and interface for hacking competition with Unity Game Engine using C#.
- Implemented real-time web service using NodeJS, WebSocket and MongoDB.

PROJECTS

Web Portfolio - Avepha

- Build personal web portfolio using many modern front-end and back-end technologies.
- Experienced with NextJS, SSR for react project using typescripts.

Senior Project (05/2014 - 05/2015)

- Robot Vision. 3D Environmental Reconstruction using RGBD camera.
- Experienced with Robot operating system (ROS) to create real-time localization and mapping using RGBD camera.

BOT - Android application

- Build android application for carries out repetitive tasks in mobile game called 7k.
- Using template matching technique and optimise for low spec android device.

Internship - Screen printing machine at Wiz machine

- Developed T-Shirt screen print machine.
- Implemented communication system using RS-485 and Ethernet modules using ATMEGA2560 and Raspberry PI.
- Implemented HMI using Java AWT on touch screen display in kiosk mode.

REFERENCES

Asst. Prof. Charturong CHANSEETIS

"Professor at Mahidol university"

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Worawish Kulpitchkasem

"Project Manager at AgroIntelligent Co.,Ltd."

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