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Work experience

Metabase, Remote

Software Engineer - (Oct 2021 - Now)

- Work on the internal SaaS tool to manage Metabase instances on cloud
- Contribute to various features of Metabase

Checkout some of my works [here](#)

Vantix - Vingroup Advanced Analytics, Viet Nam

Software Lead - (Aug 2019 - Mar 2021)

At Vantix we build a [solution](#) to measure the productivity of labour workers.

Time-series annotation tool

Our ML models are used to classify human activities based on time-series data recorded using wristbands.

In order to annotate these data we need a special tool that syncs both the time-series data and video footage of a human performing those activities

My main contributions:

- Architect the system
- Design annotation process (patent below)
- Design UI/UX

Stack

- Front end: ReactJS
- Back end: Expressjs
- Database: MySQL

IoT Gateways system

At Vantix we use wristbands to record accelerator + gyroscope data. My project is to build a gateway system to periodically collect the data from wristbands and transfer it back to our cloud.

My main contributions:

- Architect the system
- Implement processes to transfer data from gateway to cloud storage

Stack

- Hardware: [Intel NUC](#)
 - Platform: [Azure IoT Hub](#)
 - Networking: Bluetooth low energy
 - Language: Python
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Topica Edtech Group, Viet Nam

Backend Developer / AI Engineer – (Sep 2018 - Jun 2019)

- Developed APIs for our LMS - an online class platform to teach English for kids
- Set up the CI/CD for the deployment flow using Jenkins + Kubernetes

- Built a Centralized Class Monitoring System which allows one person to monitor 3 times more classes . Also automate manual processes like sending texts and observing students in class.
 - Developed and deployed an Emotion Recognition Engine using Deep Learning which achieved 85% on the private test set.
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MotionsCloud, Germany

Remote AI Engineer – (Oct 2017 - Aug 2018)

- Collect and synthesize data to train an engine that detect insurance incidents using Deep Learning which achieved 89% accuracy on private test set.

Projects

Meant-to-be startups

TStream

TStream is A live streaming service for developers

With TStream streamers can stream terminal + chat + talk with viewers without leaving the terminal

Link:

- [Website](#)
- [GitHub](#)

Stack

- Front end: ReactJS (TypeScript)
 - Back end: Go Lang
 - Networking: WebSocket for terminal streaming and WebRTC for voice chat
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Open source

- [SpaceX](#) - Auto-docking for SpaceX Dragon 2 on simulation. Implemented in Lisp
 - [Chessterm](#) - Play chess with Your friend on terminal implemented in Go
 - [Lifeterm](#) - Conway's Game of Life editor on terminal implemented in C. Use [hashlife](#) algorithm to represent cells and updates states
 - [OCR](#) - Simple OCR app to extract info from a fixed form using OpenCV
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F8 Hackathon, California - United States (2019)

This trip is fully sponsored by Facebook

Our submission: [BeSafe](#) - A chatbot that auto alerts and group nearby people when nature disasters occur

Kawaii - Startup Contest (2018)

With a team of 5, we proposed an idea to address the gap between supply and demand in the educational industry by building a matching platform

- Awarded 4th place out of more than 100 projects

Patents

A Process to annotate human activities

Author / Patent is in filing process

This patent is about an annotation process for human activities recognition task

The main focus of this process is to

- Reduce human bias
 - Built-in error checking
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VinHR - Solution to measure the production of labour workforce

Patent link: [here](#)

Contribution:

- Research solutions to capture data
- Build POCs for smart wristband to collect data