Nguyen Thanh Toan

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ABOUT ME

I am a graduate from Ho Chi Minh City University of Technology, major in computer science. I having been programming for 7 years. I have experience working as an backend developer for an e-commerce platform and cyber security software. I love to deep dive in to a subject and learn from first principles to gain the most insights and understandings. I like to work on things that can be reasoned logically.

EDUCATION

- Ho Chi Minh City University of Technology (Bach Khoa TP.HCM).
- Computer Science Major.

ACHIEVEMENTS

- 3rd prize in VietNam national Informatics contest (2018).
- Participated in several national and regional ACM-ICPC contests (national 2019, regional 2020, 2021, 2022).
- Codeforces max-rating 1900 (candidate master).

EXPERIENCE

- Participated in several competitive programming contests.
- Experienced in working with teams in agile framework.
- Experienced in SQL database (Postgres).
- Experienced in working with containerization technologies (Docker, Kubernetes).
- Experienced in using and designing REST and gRPC API.
- Experienced in C++ (7 years), Python (4 years) and Go (1 year)

PROJECTS

OPSWAT - Metadefender ICAP Server *(Sept 2023 - Now)*

- Metadefender ICAP Server is a server that receive files and help do malware detection, data loss prevention and many cybersecurity related task to the files.
- Developed the integration with OPSWAT online scan service Metadefender Cloud.
- Developed custom block page solution for infected content.
- Resolved many technical debts and problems related to database interaction.

Teko - Tekone Inventory Service *(May 2022 - Oct 2022)*

- Inventory Service is a microservice responsible for managing what is available and where they are.
- Developed incoming warehouse feature to handle incoming order for omni-channel retail platform.
- Developed many watch-dog to clean up inventory data (clean up faulty stock, clean up

unused warehouse) for omni-channel retail platform.
- Resolved many technical debts presented in the in-house developed reliable asynchronous messaging system.

Smart Grid *(Nov 2022 - May 2023)*

github.com/thanhtoan1742/smart-grid

github.com/thanhtoan1742/smart-grid-cpn-wsn-based-model

- Designed mathematical model to represent smart grid components, connections and their behaviors.
- Designed algorithms that analyze state space generated from the model to solve many optimization problem related to load distribution.

Coneveth *(Mar 2022 - Apr 2022)*

github.com/thanhtoan1742/Coneveth

- Developed a server and a mobile application for a simple IOT system.
- Server controls IOT devices and communicates to broker through MQTT protocol.
- Mobile application built using Unity engine, displays status of IOT system and sends command to broker and server to control IOT devices.

NP Video Streamer *(Oct 2021)*

github.com/thanhtoan1742/NPVideoStreamer

- Developed a video streaming application that use standard RTSP and RTP protocol.
- Server side application handles incoming request for video, reads the from storage and stream the video over the internet.
- Client side application handle user's input, send request to server (RTSP) and displays the stream of video (RTP).

Simplified Green House Model *(Nov 2020 - Jan 2021)*

github.com/thanhtoan1742/SimplifiedGreenHouseModel

- Developed weather simulation in a greenhouse model proposed by Vanthoor (2011) that helps monitor and predict future weather conditions in a greenhouse.
- Developed algorithm that uses simulated information to predict future weather condition (through a combination of ODE solver and artificial intelligence).

MIPS Assembler and Runner *(Nov 2019 - Dec 2019)*

github.com/thanhtoan1742/MIPS-Runner

- Developed an assembler that translates MIPS assembly code.
- Developed an CLI-based application that runs programs written in MIPS.