

Bui Tuan Anh

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ABOUT Aspiring Python Developer with 5 years of experience looking to build innovative and sustainable products.

- TECHNICAL SKILLS
- *Languages:* Python, PHP, C++, HTML/CSS/JS.
 - *Frameworks:* Django, Flask, FastAPI, ReactJS, Ant-design, Celery, Selenium, Scrapy, CornerstoneJS, Kibana, Logstash, Fluentd.
 - *Databases:* MySQL, PostgreSQL, Elasticsearch, RDS, AlloyDB, BigQuery.
 - *AWS:* EC2, S3, RDS, Lambda, API Gateway, Cognito.
 - *GCP:* Dataflow, AlloyDB, BigQuery, Cloud Run, Firebase, Cloud Storage.
 - *Tools:* Git, Docker, Jenkins, SonarQube, Kubernetes, MySQL Workbench, Jira, GitLab, ChatGPT, PyCharm.
 - *OS:* MacOS, Ubuntu, Windows.

- WORK EXPERIENCE
- NAL Solution** Back-end Developer Jun 2023 - Now
- Data Platform - A data mart system to store and aggregate big data from many different sources to serve the company's digital transformation vision.
 - *Techstack:* Python, AWS Step Functions, AWS RDS for PostgreSQL, AWS S3, AWS CDK, AWS Lambda
 - In charge of backend developer
 - Built services that crawl data from multiple sources
 - Job recruitment management system - Manage large numbers of job postings and analyze user interaction big data.
 - *Techstack:* FastAPI (Python), GCP (BigQuery, AlloyDB for PostgreSQL, Dataflow, Cloud Run, Cloud Storage)
 - In charge of system maintenance
 - Transferred database from BigQuery to AlloyDB: Built schema, migration data, improve SQL
 - Optimized query for searching and aggregating 500M records
 - Job interview support system. The system simulates a job interview and uses AI to evaluate interview results, helping users improve their job application skills.
 - *Techstack:* Flask (Python), Google Firebase, AWS (API Gateway, Lambda, S3, Cognito, EC2, RDS), IBM Watson
 - In charge of system maintenance
 - Transferred authentication service from Firebase to Cognito
 - Implement the transformation of the system architecture into a serverless using AWS Lambda
 - Developed system functionalities

- Annotation System - Data labeling tool. It lets you label data types like audio, text, images, videos, and time series with a simple and straightforward UI and export to various model formats. It can be used to prepare raw data or improve existing training data to get more accurate ML models.
 - *Techstack*: Django (Python), Django Rest framework, ReactJS, Celery, Websocket, AWS S3, CornerstoneJS, PostgreSQL
 - Built a lib to connect to the Data Management System for authentication and data management
 - Built UI with Ant design and ReactJS
 - Built RESTful APIs with Django Rest framework (Python) for data labeling and data display on front-end
 - Used Celery, Websocket, AWS S3 to asynchronously handle tasks with large input data such as uploading a dataset - includes a lot of images
 - Customed & created new annotation tools with CornerstoneJS library
 - Built a Data CLI to manage & quickly upload/download data of dataset
- Medical Platform - Medical imaging viewer. It can be configured to connect to Image Archives that support DicomWeb, and offers support for mapping to proprietary API formats. OHIF maintained extensions add support for viewing, annotating, and reporting on DICOM images in 2D and 3D.
 - *Techstack*: Flask (Python), ReactJS, CornerstoneJS
 - Built API with Flask (Python) to manage medical image from PACS system
 - Integrated AI service to predict & display results on Viewer - using ReactJS
 - Customed & created new annotate tools with the CornerstoneJS library

- VNPT Smart IR - Incident detection and response system. It enables protecting workstations against viruses, malware, query support, investigate causes and respond promptly when there is a problem with malicious code, monitor the installation of unauthorized software and monitor compliance with security policies of organizations. Using machine learning to detect anomalous behavior and big data platform to handle 10k events per second.
 - *Techstack*: Django (Python), Django Rest framework, Elasticsearch, Flutend, Kibana, Celery, Redis, K8S, MySQL
 - In charge of techlead
 - Built system architecture, design database to handle 10k EPS
 - Used ML with Neural Network algorithm to detect abnormal behavior on user's computer and issue a warning
 - Built RESTful APIs with Django Rest framework (Python) to serve, manage, and log statistics from 30k Servers and PCs
 - Built a license management system for individual customers and organizations
 - Integrated EFK (Elasticsearch, Flutend, Kibana) to storage, big data query. Configure ES cluster, Index lifecycle, rollover, data snapshot

- Used Celery, Redis to handle scheduling tasks like sending virus scan commands
- Deployed system with microservices architecture on k8s (using Rancher).
- Integrated, configured DevOps for the system.
- Cyber Threat Intelligence system provides customers with Threat Intelligence data from VNPT, including cybercrime data and intelligence information from Microsoft, Kaspersky, cooperative organizations (VCS, FPT, BKAV, CMC, VNISA, ...), open source, deep web; Database of malicious code, botnet, CnC server on VNPT's network; The Central Vulnerability Database has been exploited, 0-day vulnerability.
 - *Techstack*: Django (Python), Django Rest framework, Elasticsearch, Celery, Redis, MySQL
 - In charge of techlead
 - Built system architecture, database design
 - Used Celery, Redis to build Threat Intelligence data crawler from open sources
 - Built RESTful APIs with Django Rest framework (Python) to serve, manage, and analyze Threat Intelligence data obtained from crawlers and purchased from vendors
- Digital risk protection system addresses threats across the digital space, beyond the enterprise network. The main functions of DRP include: Social Media Protection (Facebook, Twitter), Data Leak Detection (Forums, Github).
 - *Techstack*: Django (Python), Selenium, Elasticsearch, Celery, Redis, MySQL, Bootstrap
 - In charge of techlead
 - Built system architecture, database design
 - Designed UI with Bootstrap HTML/CSS/JS
 - Built web app with Django providing API to display and manage crawler data
 - Built data crawler module from many sources (facebook, github, forum, news) using Celery, Redis - Used Elasticsearch to store crawler and search data.
- Information security awareness evaluation via phishing email system.
 - *Techstack*: Django, Flask (Python) Elasticsearch, MySQL, Bootstrap
 - In charge of techlead
 - Built system architecture, design database using MySQL
 - Built the system using Django with Class-based view model to manage phishing campaign and show statistics dashboard
 - Built UI with Bootstrap HTML/CSS/JS
 - Used Elasticsearch to store phishing logs

EDUCATION

Thang Long University, Hanoi, Vietnam

Sep 2015 - Feb 2020

Diploma in Applied Mathematics - GPA: 3.1/4 via 154 credits

- Thesis: Building a attendance system by facial authentication using machine learning
- Score: 10/10

Researcher

- Building a attendance system by facial authentication using machine learning
- Supervisors: Ph.D Nga Mai, M.Sc Thang Nguyen

Researcher

- Attendance System based on Blockchain technology
- Supervisors: M.Sc Duy Tran

Researcher

- Formal proof
- Chairman: Prof. Thomas C. Hales

HONORS AND AWARDS

Cyber Security Global Excellence Awards 2021 - VNPT Smart IR
 The ICT Recognition of Excellence at Sao Khue Award 2021 - VNPT Smart IR
 The 3rd prize at Startup Francophone 2019 - Campuchia
 The consolation prize at Vietnamese Talent Awards 2019 - VNPT Smart IR

CERTIFICATES

TOEIC ETS 600	Oct 2022
CMMI 2.0 Training - Center of Excellence	Apr 2022
AI Machine Learning Deep Learning - Logical Operations	Dec 2020
Theorem Proving in Lean - Prof. Thomas Hales	Jun 2018
Internet of Things - Sapporo IT Front and VINASA	Apr 2016
TechCourseTLU - Microsoft Student Partner	Dec 2016

RESEARCH INTERESTS

Big Data	Hacking
Generative AI	Finance