Nguyen Hai Dang

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BIOGRAPHY

I graced the world with my presence in a cozy middle-class family in suburban Hanoi, Vietnam. Life was all bicycles and banh mi until destiny knocked in the form of our family's first computer when I was twelve-year-old. It was "love at first sight" – yeah, I was that kid who fell head over heels for a PC. I asked my parents to buy a monthly subscription of Echip - the only "computer" magazine in Vietnam and my only source of knowledge at the time (around 2005). And then 2008, The Internet has finally reached our house. I got drawn right into Yahoo! Chat, Google, hacking... and Pascal. That is how it all started.

- 2005: Broke first hard drive, 1 motherboard, 1 DVD disc drive... and got a beating more times than I'd like to admit.
- 2007: Masterminded a piggy bank heist to buy my first Flash USB flash drive (an USB completed with a dazzling flash light). Spoiler alert: got caught, of course a good ol' fashioned beating.
- 2010: Ascended to the majestic titles of Moderator of Joomla! on the ITVNN forum (big deal back then) and Local Attack box Moderator of VHC - Vietnamese Hacking Community. Started earning money by creating websites with Joomla! (and miraculously avoided any more beatings). At 17.

And I started to love the PHP language. Stuck with it since then. (To be honest, I started a love affair with Python and Data Science)
I forsaken Pascal :(
Also, I've completed my Master Degree in Software Engineering at FPT University right on my 30th birthday.

PROFESSIONAL SUMMARY

- **Versatile Senior Engineer** with over 11 years of experience in PHP, microservices, and backend system design. With a keen interest and updated knowledge on AI realm.
- Proven track record of transforming legacy systems into high-performance, scalable microservices architectures—reducing critical process turnaround times from months to minutes
- Adept at driving product excellence by identifying bottlenecks, improving throughput, and ensuring zero downtime, while mentoring engineering teams and establishing coding best practices.
- Experienced in Agile environments and proficient in DevOps, cloud platforms, and modern software design patterns.

EDUCATION

◆ **FPT University**   Jun 2019 - Dec 2023

Master in Software Engineering
Ranking: 8.3

◆ **FPT University**   Sep 2011 - Dec 2015

Bachelor in Software Engineering
Ranking: 7.16

SKILLS

Micro-services Architecture	- Communication channels: RabbitMQ, Kafka, Elastic Search - Database-per-service or using Schemas - Experienced in breaking legacy Monolith to Micro-services, improved a critical Lab Result module TAT time from 3 months to under 3 minutes - Experienced in Ecommerce crawler system

PHP	- Over 11 years of experiences
	- Worked with:
	  • Laravel (>10 years)
	  • CakePHP
	  • Yii 2
	  • Symphony

Python	- Django: 2 year of experience - For data, ML, AI
DevOps	- Kubernetes setup - Terraform - Jenkins - HelmCharts - AWS Cloud

Design pattern and practices	- MVC - SOLID, DRY, KISS, YAGNI - Clean Code & The Clean Coder by RR. Martin are some of my favorite books in SE. Ask me a chapter :D jk - Dependency Injection - Repository - Micro-services - TDD & BDD
Artificial Inteligence	- Studied Computer Vision - Can design CNN models for handling pattern matching or detections - My thesis about making of a light-weight CNN model to detect a wide range of emotion in realtime. Since its light weight, it can be embedded easily. You can find more information in the PDF here https://github.com/socrec/restauai-thesis-paper/
Others	- FE skills: ReactJS, VueJS, NobleUI (Laravel Blade), Filament, Livewire. - Experienced in Agile, Scrum (Nexus Scrum,...) Studied in-depth about Agile as part of MSE degree. - Experienced in managing teams of 5-10 - Well-versed in best-practices for SQL database - Throughout knowledge in GIT (Branching, Work Flow, best practices…) - Knowledgable in DevOps task: Can setup and training staffs to use CI/CD. - Have FE knowledge. Can work with other languages or manage FE devs - Welcoming attitude when it comes to learning something new - Wordpress (a little) - Photoshop (>7 years, I am an amateur photographer) - Good English - 我可以一点点中文。 - 私は少し日本語を知っています。

CERTIFICATIONS AND AWARDS

Master Degree in Software Engineering	2023
Coursera Deep Learning Specialization Certificate ID: EPPRX6ZM6ADX	2020
Coursera Python for Everybody Specialization Certificate ID: ZMMKW49FUVA5	2020
30% Scholarship for Master in Software Engineering course at FPT University	2019
Excellent Staff of the 2016 Fourth Quarter by 3Si JSC	2017
Information Technology Passport Certificate by VITEC - 675/800 points	2016
Highest Score in Annual English Exam by 3Si JSC	2016
Excellence diploma of Internship – by DOS Company and FPT University	2014
Capstone Project got Highest Grade in the Board of Capstone Projects	2015
Level 6 Academic preparatory English Course Completion Certificate, FPT University (Equal TOEIC 800++, IELTS 6.0)	2015
Certificate of Merit of Fall and Summer Semester	2014

RECENT PROJECTS

RestauAI – The Application of Facial Expression Recognition in Food Business

(2023 - Now)

Customer	Self research
Description	Developed as part of my Master of Software Engineering thesis at FPT University, this project designed and implemented a proof-of-concept system to enhance the customer experience in food and beverage businesses. The system leverages computer vision and deep learning techniques to perform two core functions: 1. **Facial Recognition**: Identifying returning customers using a pre-trained Convolutional Neural Network, thereby enabling personalized, contact-less ordering. 2. **Facial Expression Recognition**: Analyzing customers' emotional states (covering emotions such as anger, happiness, fear, etc.) to trigger context-aware interactions at the Point of Service (POS), such as initiating an order or providing tailored recommendations.

Team size	1
My position	Researcher
My responsibilities	By employing robust image augmentation, CNN architecture design, and hyperparameter tuning (with tools like TensorFlow and SageMaker), the system achieved promising accuracy improvements, positioning it as a game-changer for automated ordering and customer feedback analysis in the FnB industry. This innovative solution not only streamlines operations in fast-paced dining environments but also lays the groundwork for future enhancements in payment processing, menu recommendations, and interactive customer engagement.
Technologies used	Python, Keras, Numpy, Jupiter Notebook, LATEX language, TensorFlow, SageMaker.

Diag Laboratories System – https://diag.vn/

(Dec 2020 - Now)

Customer	Diag Laboratories
Description	Led the migration of a massive monolithic application to a robust microservices architecture—reducing lab test result processing time from hours to just 3 minutes, ensuring 100% accuracy in PDF generation.
Team size	15
My position	Lead Backend Developer
My responsibilities	- Code the backend from scratch. - Migrate the huge monolith application into services while maintaining 99% uptime - Improved performance of important modules (Lab test results, notification pipelines,...) . Especially the Lab test result pdf, it had many problems, I removed the bottle-neck and improve the design. Result is 100% no missing pdf AND result time decreased from 3 hours to 3 minutes - Define Coding standard, Conventions document and make sure everyone adhere
Technologies used	Micro-services, data warehouse, Kafka, Lazy migration, Laravel 10

Powersell – https://powersell.com/

(Jan 2020 - Nov 2020)

Customer	Datamart
Description	Worked as Project manager and Senior coder for 2 projects - PowerPaint: A tool to mass decorate seller's products on multiple ecom platforms at once - Social Commerce: Manager your Instagram, Facebook, Zalo AIO - The company was acquired by a big player in Ecom
Team size	10
My position	Lead developer, Project Manager
My responsibilities	- Lead & manage the team - Hands-on coding and SA designing from scratch
Technologies used	Micro-services, data warehouse, ecom platforms API, Crawler system, Realtime messaging

EXPERIENCE

◆ **Diag Laboratories**   Dec 2020 - Now

Senior Software Engineer

Programming in Python/PHP.Building a Micro-services system for taking examination results from various machines and systems to orchestrate and serve it to Doctors and Patients via multiple platforms like mobile app and website. My job now focus only on technical aspect.
- Tech stack: Laravel, Kafka, Micro-services, PostgreSql, GCP.
- Team management: Agile - Scrum & Jira.
- Team size: 20

◆ **Datamart Solutions Pte Ltd**   Jan 2020 - Dec 2020

Senior Principal Engineer

- In charge of Social Commerce & PowerPaint module for PowerSell.From building features requirement with PO team, to coding base, managing teams from the ground up.
- Working with oversea teams on a BI project, fron A-Z.
- Tech stack: Laravel, Social platforms, MongoDB, MySQL, RabbitMQ, E-commerce crawler, big data.
- Team management: Agile - Scrum & Jira.
- Team size: 5 - 10

◆ **Launch Deck, LLC**   Aug 2018 - Jan 2020

Senior Developer/Projects Leader
- Daily communication and get requirements directly with the clients from US
- The company software division is still young, so I helped to stabilize stuffs, and helped to define a development process
- Manage Jira and Confluence
 - Develop projects in Python, NodeJS and PHP

◆ **Infinity Core (Singapore based)**   Mar 2017 - Jul 2018

Project Manager - PHP Tech lead
- Create SRS, documents
- Track project's progress
- Manage team members
- Responsible for training and technical sharing between members
- Responsible for improving development processes
- Apply Agile (Scrum) with tools like Redmine, Team City (include setting up all tools)

◆ **3S Intersoft jsc**   Nov 2016 - Feb 2017

Product Manager of several projects
- Develop Web service, Android applications, iOS applications
- Sale & Marketing & Customer Support for ShopApp.vn
- Work as Project Leader of a development team of 8 people
- Manage and develop the whole product, from both business and development perspective
- Develop core component for http://shopapp.vn/- Training new PHP developers

◆ **3S Intersoft jsc**   Apr 2016 - Oct 2016

PHP developer
- Develop Web services, platforms, applications match customer's need
- Develop core components for http://crisis.vn/

ADDITIONAL INFORMATION

For more information about me and my career, please visit
My Blog: http://dangnh.cf
My Quora: https://www.quora.com/profile/Mark-Nguyen-96
My Linkedin: https://www.linkedin.com/in/mark-nguyen-4027458b
My Coursera Profile: https://www.coursera.org/learner/dang-nguyen-h-8507