Duy Huynh

MACHINE LEARNING ENGINEER · SOFTWARE BACKEND DEVELOPER

District 3, Ho Chi Minh City

📱 +84 918 451 096 | ✉ vndee.huynh@gmail.com | 🏠 blog.duy-huynh.com | 🐙 github.com/vndee | 💼 linkedin.com/in/vndee

Work Experience

Hung Thinh Corporation   *Ho Chi Minh City, Vietnam*
Senior Specialist, Applied Artificial Intelligence   *Apr 2022 - present*
- Work as a senior research and development specialist at Hung Thinh Innovation (a member of Hung Thinh Corporation); In charge of building awesome features for the next-generation of smart cities.
- **Techstack:** Python with PyTorch, NumPy, Matplotlib, Pandas, Scikit-learn, Ubuntu Linux, Linux tools, Apt, Scripting, Git, Jenkins, Kubernetes, FastAPI, Kafka, Redis,...

TIKI Corporation   *Ho Chi Minh City, Vietnam*
AI Engineer   *Dec 2020 - Apr 2022*
- Develop million-scale recommendation algorithms for TIKI using Pattern Mining, Graph Neural Network, Matrix Factorization, and other Representation Learning algorithms. TIKI (tiki.vn) is the leading online retailer in Vietnam, offering a seamless end-to-end retail experience.
- Work closely with Data Engineer and Backend Engineer to produce high quality and production-ready system. We also run A/B tests to evaluate the performance of the algorithm, as well as deliver rapid prototyping of products with immediate user feedback and business needs.
- **Techstack:** PyTorch, Kubernetes, Google Cloud BigQuery, Apache Airflow, Pandas, Numpy and other high-performance Python computing libraries.

DPS - Dai Phat Solution   *Ho Chi Minh City, Vietnam*
AI Engineer   *Dec 2018 - Nov 2020*
- Develop end-to-end Optical Character Recognition solution for Vietnamese with 0.2 CER. Build backend services for face attendance checking application base on Face Recognition Algorithm with 98% accuracy.
- Implement micro-services architecture with REST-based API to serve real-time AI solutions. Deploy and maintain overall service infrastructure utilizing Docker container, focusing on high-availability, fault tolerance, and auto-scaling.
- **Techstack:** PyTorch, Docker, FastAPI, SQL and NoSQL database, Apache Kafka, Redis, Pandas, Numpy and other high-performance Python computing libraries.

AI Lab - Ton Duc Thang University   *Ho Chi Minh City, Vietnam*
Research Internship   *Jun 2017 - Dec 2018*
- Deep dive into ML/DL theories, especially in Natural Language Processing.
- Work on document understanding project using modern computer vision technique like Object Recognition and Segmentation.
- **Techstack:** PyTorch, Jupyter Notebooks, Flask.

Education

Ton Duc Thang University   *Ho Chi Minh City, Vietnam*
Bachelor of Science in Computer Science   *Aug 2017 - Sep 2022*
- GPA 3.29, Dean's Honour List

Huynh Man Dat Highschool for the Gifted   *Kien Giang, Vietnam*
Excellent student specializing in Informatics   *Aug 2014 - Aug 2017*

Opensource Projects

Sentivi   *https://github.com/vndee/sentivi*
PyTorch, Scikit-learn, Transformers, FastAPI, Docker   *Sep 2020 - Oct 2020*
- A simple tool for sentiment analysis which is a wrapper of scikit-learn and PyTorch Transformers models. It is made for easy and faster pipeline to train and evaluate several classification algorithms.

GraphCRDT   *https://github.com/vndee/graph-crdt*
Python, Docker, FastAPI, WebSockets   *Dec 2021 - Dec 2021*
- A portable on-memory conflict-free replicated graph database. This is a simple implementation of a conflict-free replicated graph database. The graph operations have been developed based on the Last-Writer-Wins element set. This project comes with a full decentralization fashion which can merge data without any coordination between replicas.

Visee   *https://github.com/vndee/visee*
PyTorch, FastAPI, Kafka, Docker, Milvus, Elasticsearch   *Dec 2019 - Feb 2020*
- End-to-end visual search service that empowers by state-of-the-art Deep Learning algorithm. It is designed for scale and stability.

Skills

Computing	Python high-effiency computing libraries and related: Pandas, PyTorch, NumPy, Scikit-learn. etc.
Backend	FastAPI, Docker, Java, C/C++, Jenkins, Airflow, Kafka, Redis, SQL and NoSQL database, Google Cloud Platform, BigQuery, Kubernetes.
Miscellaneous	Linux, Shell (Bash/Zsh), LaTeX(Overleaf/R Markdown), Git, CI/CD, Quantitative Analysis.
Soft Skills	Time Management, Teamwork, Problem-solving, Documentation, Engaging Presentation, Technical Writing and Discussion.

Achievements

2017	**Finalist/Honor Prize**, National Informatics Competition for Youth	*Binh Dinh*
2016	**Silver Medalist**, 30/4 Olympiad for Gifted High School Student (South and Central Vietnam)	*Ho Chi Minh City*
2016	**Bronze Medalist**, Costal and Northern Olympiad for Gifted High School Student	*Thai Nguyen*
2016-2017	**Province's Representative**, First-round of National Team Selection Competition in Informatics	*Kien Giang*

Competitive Programming

Codeforces Candidates Master, Rating 2065 (top 4%): https://codeforces.com/profile/hdi	*2015-2017*
Hackrrank Algorithm Specialist, Rating 2268.76 (top 1%): https://hackerrank.com/watagogo	*2016-2018*

Publications

NICS'22	An Pha Le, Tran Vu Pham, Thanh-Van Le, **Duy V. Huynh**, Dat Ngo. *Robust Hierarchical Model For Joint Span Detection And Aspect-based Sentiment Analysis in Vietnamese.* In Proceeding of NAFOSTED Conference on Information and Computer Science (NICS), 2022.
ICMLANT'21	An Pha Le, Tran Vu Pham, Thanh-Van Le and **Duy V. Huynh**. *Neural Transfer Learning For Vietnamese Sentiment Analysis Using Pre-trained Contextual Language Models.* In Proceeding of IEEE International Conference on Machine Learning and Applied Network Technologies (ICMLANT), 2021
KSE'20	Hien T. Nguyen, **Duy V. Huynh**, Hieu D. Ngoc and Nam Thoai. *Visualizing Vietnam's Scientific Research Projects Based on Pre-trained Language Models and UMAP.* In Proceeding of Knowledge and Systems Engineering Conference, 2020.

References available upon request.