TUAN DAT NGUYEN

Trento, Italy

tuandat95cbn@gmail.com

OBJECTIVE

I am keen interest in Computer Science especially Algorithms and Artificial Intelligence. Learning state of-the-art technologies and advanced knowledge is my passion.

BASIC

Name: Tuan Dat Nguyen
Gender: Male
Date of birth: 03/12/1995
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Nationality: Vietnamese
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EXPERIENCE

STUDENT SOFTWARE ENGINEER — Dec 2021 - Present
ICONPRO - A.I. SOLUTIONS — *Aachen, Germany*

- Advanced Search: allows users to search for jobs quickly and more profoundly.
- Muti-state progress screen: straightforward and intuitive progress screen for the process of training jobs.
- Design and implement flexible and proper email handler and template.
- Enhance the stability of automl software by implementing chunking upload, integration test, and unit tests...
- Comprehend, improve, and refactor legacy automl core and backend code, increasing performance, stability, and maintainability.
- Integrate Ares and automl: Design and implement UI for Process Optimization module.

Tech stacks: **Python / flask / shap / reactjs / docker / devops / azure / k8s**

DATA SCIENTIST INTERNSHIP and THESIS RESEARCH — Aug 2022 - Mar 2023
UNIVERSITY OF TRENTO COOP WITH NATIONAL INSTITUTE OF OCEANOGRAPHY AND APPLIED GEOPHYSICS(OGS) — *Trento, Italy*

- Working with high-performance computing clusters to do parallel computing with climate data.
- Using Dask and xarray to implement parallel applications and rocket the performance of analyzing big datasets.

Tech stacks: **Python / jupyter / dask / xarray / matplotlib / pandas / hpc / parallel application / copernicus service / netcdf ...**

SOFTWARE ENGINEER & SYSTEM ARCHITECTURE — Jun 2018 - Dec 2022
DAILYOPT ,.LTD — *Da Nang, Viet Nam*

- In charge of planning and machine learning products:
  - ViTrip : suggest best tours follows by tourist requirements
  - OCR for Vietnames identity card
  - Agriculture planing
  - face recognition
  - Trip planning :vehicle routing applications include routing problems and bin packing.
  - School bus routing : routing school buses by requirements from school and parent ...
- Design UI and support the development of products.
- Deploy, implement, and scale products on different environments (on-premise, cloud)

Tech stacks: **Java / Spring / docker / aws / gcp / flask / bottle / reactjs / mysql / sql server/ dotnetnuke**

DATA ENGINEER Apr 2020 – Nov 2020

LIEN VIET TECH,..JSC *Ha Noi, VN*

- electronic Know Your Customer system:
  - facesearch : find similar faces in the database.
  - face compare : check the identical between the two faces.
  - check liveness : check if a face is real or not (screenshots, fake images).
- Design architecture and storage, implement and deploy service with high availability.
- Convert different formats and deploy deep learning models.

Tech stacks: **tensorflow serving/ docker swarm / elasticsearch / mongodb / tensorflow / pytorch...**

SOFTWARE ENGINEER & TESTER Aug 2017 – Feb 2019

OLBIUS ,..JSC *Ha Noi, Viet Nam*

- Sapa: (peer-to-peer ridesharing, taxi cab hailing) In charge of the software, building API and service backend, develop a back-office application. Implement ranking drivers algorithms using heuristic methods. Integrate payment portal.
- DMS: (a distribution management system for retail chains and local distributors) consists of a large RDB and OLAP database ($> 1k$ tables). Design and implement shipping module. Design and perform performance tests. Write script for data integration for olap db.

Tech stacks: **Ofbiz/ Java (Spring) / Jmeter / pentaho (pdi) /jquery/jqwidgets ...**

DATA ENGINEER INTERNSHIP Jul 2017 – Jan 2019

VIETTEL CYBERSPACE CENTER *Ha Noi, Viet Nam*

- Vietnam digital knowledge system and Q & A social network system.
  - ranking feeds personalize for users - heuristic method
  - automatic extract web data tool - extract text information from any website.

Tech stacks: **scala / spark / hadoop / hdfs / kafka /Boilerpipe ...**

SOFTWARE ENGINEER & THESIS RESEARCH 2015 - Dec. 2017

MSO LAB - HA NOI UNIVERSITY OF SCIENCE AND TECHNOLOGY *Ha Noi, Viet Nam*

- Optimization techniques: planning transport system, timetable schedule...
  - Design, research, and implement solutions for constraint sanctification problems.
  - Praticalize for optimization problems by designing and implementing web applications for constraint sanctification problems.
- traveling salesman problems with multiple drones: research and propose the problem, design algorithm, and implement prototype application.

Tech stacks: **choco / cbls /cblsvr / Greedy algo / Generic Algorithms / Tabu search/ simulated analing ....**

EDUCATION

Master of Computer Science, University of Trento Oct 2020 - Mar 2023

- **Thesis:** a new open ocean sound velocity dataset.
- AI Challege.

THE DEGREE OF ENGINEER IN COMPUTER SCIENCE - 5 years, Ha Noi University of Science and Technology (HUST)   Jul 2013 – Apr 2018

- **Thesis:** Traveling salesman problem with multiple drones - Grade A+ (9.6/10) - highest score this semester.
- **Final grade:** 3.16

EXCHANGE STUDENT - 1 year, RWTH Aachen University   Oct 2021 – Sep 2022

- Model-based engineering, concurrency theory, Knowledge-based system ...
- Celonis hackathon.

INFORMATIC CLASS, Bac Ninh high school for the gifted   Oct 2010 – Apr 2013

- Bacninh national olympiad team for infomatics

SKILLS

Programming Skills	SQL / Self-study programming language / Java / Nvim(Vim) / latex Python / Web Development: HTML, CSS, JavaScript ...
Operator system	Linux / window
Database	RDB (MYSQL, POSTGRES, SQL Server ...) / NoSQL (Redis, mongoDB) / Elastic search / Hadoop / Hdfs / ...
Others	Git/ Nvim(vim)/ Shell / LATEX/ Docker /Dask /Spark ...
Soft Skills	Communication / Presentation / Self Study / Time Management

LANGUAGE SKILLS

Vietnamese. Mother tongue(s)

English Proficient

HONOURS AND AWARDS

- Excellent Scholarship for international student – University of Trento
- 3rd prize - Vietnam national olympiad in infomatics – Ministry of Education and Training
- Lotte scholarship – Lotte Group
- HUST scholarships - Schoolarships for excellent academic performance – Ha Noi University of science and technology

PUBLICATIONS

Phan Anh Tu, **Nguyen Tuan Dat**, and Pham Quang Dung. Traveling salesman problem with multiple drones.The Ninth International Symposium on Information and Communication Technology, 2018

REFERENCE

- **Dr Dung Pham Quang**, Supervisor
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