**CURRICULUM VITAE**

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| Position:  | A person in a white shirt  Description automatically generated |
| Personal information | Name: Nguyen Tuan Anh | Date of birth: Nov 02, 1981 |
| Phone: (+84) 0988.086.099 | nt.anh.fai@gmail.com |
| Professional qualifications: * PhD Communications and Information technology
* Master Computer Science
 |
| Current job | Employer: Foxconn Vietnam |
| Address: Lot M1 and Lot F, Quang Chau Industrial Park, Van Trung Commune, Viet Yen District, Bac Giang Province, Vietnam |
| Position: AI Leader / Head of AI Dept | Years with present Employer: 3 |

**Here are some key highlights:**

**Academic Foundation and Teaching Experience**

* Ph.D. in Communications and Information Technology
* Master’s degree in computer science
* Lecturer at Thai Nguyen University of Technology
* Published 11 research papers in Speech Recognition and Deep Learning

**AI and Computer Vision Project Implementation**

* Over 3 years as AI Leader, leading AI projects for a global smart factory.
* Lots of experience in applying AI in identifying product appearance errors.
* Directly code most work-related projects to ensure program stability, accuracy and streamlining.
* R&D experience in fingerprint recognition, object detection, face, and voice recognition.
* Implemented AI system for candidate-job matching on a professional recruitment platform.
* Developed multilingual video dubbing application using STT and TTS technologies.

**Programming Skills and Project Management**

* Proficient in Python, C++, Flask, and various software development tools
* Experience with Git, Docker, and modern software development practices.
* Led teams, assigned tasks, integrated AI projects.
* System design, main coding responsibilities, project documentation

**AI Applications for Data Analysis and Decision Support**

* Deployed Lean Learning Machine (LLM) system for factory log data analysis.
* Created querying and recommendation systems to extract production and personnel insights.
* Implemented real-time monitoring and decision support features to enhance operational efficiency.

**PROFESSIONAL EXPERIENCE STATEMENT**

| **From** | **To** | **Company/Project/Position/Relevant professional and management experience** |
| --- | --- | --- |
| 2/2022 | Date | **Company: FUYU PRECISION COMPONENT CO., LTD.****- Position:** AI LEADER, Chief Technical**- Projects** Build a global WEF smart factory[[1]](#footnote-1):* Led & code AI projects for a global WEF smart factory, focusing on:
	+ AI-enabled order forecasting and supply chain planning
	+ Real-time shop floor compliance management with panoramic AI vision
	+ Research and development of AI-PINN technology for enhanced quality and efficiency.
	+ LLM-enabled failure log analysis and anomaly handling
* Developed AI programs integrated with factory data and automated machinery, leveraging:
	+ Data integration from factory systems
	+ Automation machinery interfaces
	+ Web development for comprehensive report visualization

**- Project: AI CVs-JDs Matching System Development** * Developed AI algorithms to facilitate candidate and recruiter matching within a professional web recruitment platform.
* Implemented advanced search and matching functionalities to optimize candidate-job fit.
* Enhanced system efficiency by integrating machine learning techniques for improved candidate recommendations.

**- Project: Multilingual Video Dubbing Application Development** * Engineered language conversion functionalities for transforming instructional videos into multilingual content.
* Designed and implemented Text-to-Speech (TTS) and Speech-to-Text (STT) algorithms to facilitate seamless dubbing across languages.
* Ensured high-quality output through rigorous testing and optimization of dubbing processes.

**- Project: LLM Integration for Factory Data Analysis** * Developed and deployed a Lean Learning Machine (LLM) application for factory operations.
* Created querying and recommendation systems to analyze factory log data and extract insights related to production, personnel, and other relevant factors.
* Implemented features for real-time monitoring and decision support, enhancing overall operational efficiency and productivity.

**-** **Projects**: Product appearance inspection, a list of hundreds of projects embedded in a software called IVIS (Intelligent Visual Inspection System), has integrated inspection of up to 50 different types of products in one software. Some examples about: **IVIS for Visual Inspection:*** Check the appearance of the final product (Check if each type of product, the packaging is correct, the labeling is not deviated, there are enough labels, ...)
* Check the packaging process (Check if the worker's operation is correct or not, put enough components and accessories, ...)
* Check bonded with the volume (Check if the weight of each product matches the requirements, the weight of which MAC code, attached to which product, ...)
* Check the appearance for accuracy (Check whether the product is affixed with the correct type of label, components and accessories placed in the box are correct for that product, ...)
* Check the product function appearance (Check whether the light is working or not, the indicator light is correct with the function test scenario, the indicator light can be controlled, ...)
* Monitor and evaluate worker capacity (Supervise working workers, assess the speed of product completion, assess worker qualifications, assess the accuracy of worker manipulations compared to SOP, ...)
* Security monitoring of prohibited areas (Monitoring prohibited areas by camera and alerting to enforcement devices)
* Product quality inspection (Checking for defects in appearance and counting the number of products and components while running on the line) …

**Some KYC related projects:**- Fingerprint recognition via Camera (Image processing and multiple fingerprint recognition through phone camera images)- Voice recognition (speech classification, distinguishing between different people through voice)- Face recognition (regular face or wearing mask, eyeglasses)**Tools and managements:**- Material management system (material information management, material ordering management, material supply)- Support systems to optimize PM's data forecasting process- Management systems and analysis of product log systems and product errors- Lean management project to manage production origins- **Responsibility:** * Lead team,
* System design,
* Project documentation,
* Task assignment of members,
* Main coding person,
* Integration of members' small projects to form an AI bonded inspection system.

- **Techstack:** Using Python, Tkinter, Yolo to create bond recognition software, in addition, full-stack code using Flask, … |
| **9/2016** | **12/2019** | **Company: GRG Banking Equipment Co., Ltd. Guangzhou, China**- **Position:** AI R&D- **Project:** * R&D on fingerprint recognition for time attendance system
* R&D on Object Detection for ATM anomaly recognition system
* R&D on Object Checking for subway automatic entrance and exit tracking system.

- **Responsibility:** * Programming and data processing skills.
* Research and technical problem-solving skills.
* Knowledge of Computer Vision and Machine Learning.
* Experience in developing object recognition and tracking systems.
* Use popular libraries and frameworks like OpenCV, TensorFlow, PyTorch, and Keras.
* Ability to work independently and in a team, communication, and presentation skills, …

- **Techstack:** 1. **Programming Languages**: Python, C++
2. **Libraries and Frameworks**: OpenCV, TensorFlow, PyTorch, Keras
3. **Machine Learning and Computer Vision Algorithms**: CNNs, RNNs, Transfer Learning, Feature Extraction Techniques
4. **Development Tools**: Jupyter Notebooks, Git, Docker
5. **Other Tools and Technologies**: IDEs (PyCharm, VSCode, JupyterLab), Data Processing Libraries (NumPy, pandas, scikit-learn), Image Annotation Tools (LabelImg, VGG Image Annotator, COCO Annotator)
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| **9/2016** | **12/2019** | Company: South China University of Technology, Guangzhou, China- **Position:** PhD. RESEARCHER- **Project:** * PhD student in the field of Speech Recognition
* Research other areas: related to Speech, Image, and Deep Learning.
* Publish 11 scientific research articles (https://scholar.google.com.vn/citations?user=BWPlNxkAAAAJ)

- **Responsibility:** + Research new tectnology |
| **7/2005** | **12/2022** | Company: Thai Nguyen University of Technology, Vietnam- **Position:** University Lecturer- **Project:** Teaching about Computer Engineering (C/C++, C#, Python, Micro controller – Micro processor, Embedded system, Machine learning – Deeplearning, AI application…) - **Responsibility:** Teaching subjects related to hardware, software, embedded software, and AI.  |

1. Build a global WEF smart factory report: <https://github.com/ntanhfai/reports/blob/main/WEF-report.pdf> [↑](#footnote-ref-1)