# NGUYEN MANH TIEN ANH NATURAL LANGUAGE PROCESSING RESEARCHER

Education

**Engineer of Computer Science** 

Hanoi University of Science and Technology (HUST) School of Information and Communication Technology (SOICT) 08/2018 - 09/2023

Major: Information Technology

Degree: Engineer

• Degree Classification: Very Good

• CPA: 3.51/4.0

• GPA of the last semester: 4.0/4.0

Experience \_

#### Natural Language Processing R&D Engineer

Vingroup Big Data Institute (VinBDI), Hanoi, Vietnam 07/2022 - Now

- Virtual Assistant Technology Division.
- Supervisor: Dr. Kim Anh Nguyen.
- Research Area: Develop Large Language Model (LLM) and Automatic Speech Recognition (ASR) applications in virtual assistants.
- Develop and deploy multimodal LLM and speech-to-speech systems.
- Develop and deploy multiple domain adaptation techniques and neural language models for ASR.
- Develop and deploy personalization strategies for ASR and LLM in Vinfast's virtual assistant.
- Develop an inverse text normalization system using finite state transducers and deep neural networks.
- Programming languages and tools: Python, C++, Java, Pytorch, ONNX, Triton, Torchserve, vLLM, Jenkins, Docker, Git.

## Research Assistant (Remote)

University Paris-Est Creteil, France

06/2021 - 02/2025

- LISSI-TincNET Research Team.
- Supervisor: Assoc. Prof. Sami Souihi.
- Research area: Develop Natural Language Processing-based applications to enhance network management and cybersecurity.
- Develop a framework leveraging deep learning and NLP capabilities for network management based on operator utterances.
- Develop a novel system integrating deep learning, NLP, and transfer learning techniques for cybersecurity, focusing on detecting and classifying both well-known and novel web attacks with high accuracy.
- Write and publish scientific papers.
- Programming languages and tools: Python, Java, Pytorch, Tensorflow, Flask, Latex, Docker, Git.

### **Teaching Assistant**

Hanoi University of Science and Technology (HUST) School of Information and Communication Technology (SOICT) 09/2021 - 02/2022

- Computer Engineering Department.
- Prepared lectures and exercises for the Java programming course.
- Taught Java programming course.
- Programming languages and tools: Java, SpringBoot, Latex, Docker, Git.

#### Software Engineer

#### Secomus Technology Company

04/2020 - 03/2021

- Back-end Team.
- Designed and developed relational databases for e-commerce websites.
- Developed extension applications for e-commerce websites on the Shopify platform.
- Developed internal management systems.
- Programming languages and tools: PHP, Python, Laravel, Flask, Django, MySQL, Docker, Git.

# NGUYEN MANH TIEN ANH

# NATURAL LANGUAGE PROCESSING RESEARCHER

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#### **Honors and Awards**

- Al Project Grant in VinTechTalent Program Vingroup, 2024
  - Funding Organization: Vingroup
  - Project Title: Al Tutor for Kids
  - Role: Project Leader
  - Award Amount: \$10,000
- Best Thesis/Presentation Award in SOICT, 2023
  - Thesis title: Deep Learning in NLP for Anomalous HTTP Requests Detection
  - · Committee: Cybersecurity
  - Supervisors: Assoc. Prof. Sami Souihi and Dr. Van Tong
- Excellent in Teaching Assistant Award in SOICT, 2022
- 2nd and 4th Prize in the City-level Mathematics Competition for High School

#### **Publications**

- <u>Manh-Tien-Anh Nguyen</u>, Van Tong, Sondes Bannour Souihi, and Sami Souihi. "Zero Trust: Deep Learning and NLP for HTTP Anomaly Detection in IDS." IEEE Journal on Selected Areas in Communications, 2024. (IF: 14.83).
- <u>Manh-Tien-Anh Nguyen</u>, and Thach Ho Sy, "Improving Speech Recognition with Prompt-based Contextualized ASR and LLM-based Re-predictor." in Interspeech 2024, 25th Annual Conference of the International Speech Communication Association.
- <u>Manh-Tien-Anh Nguyen</u>, Van Tong, Sondes Bannour Souihi, and Sami Souihi. "Deep Learning in NLP for Anomalous HTTP Requests Detection." 2023 19th International Conference on Network and Service Management (CNSM). IEEE, 2023.
- Manh-Tien-Anh Nguyen, Sondes Bannour Souihi, Hai-Anh Tran, and Sami Souihi. "When NLP meets SDN: an application to Global Internet eXchange Network." ICC 2022-IEEE International Conference on Communications. IEEE, 2022.

#### Languages\_

- Mother tongue(s): Vietnamese
- Other language: English
  - APTIS ESOL Certificate: Overall band C (Date: 25/09/2022)
  - Scale score:
    - Listening: C-48/50
    - Reading: C-46/50
    - Speaking: B2-45/50
    - Writing: C-48/50
  - CEFR skill descriptors: Level A1/A2: Basic User B1/B2: Independent User C: Proficient User

### **Professional Skills**

- Programming Languages: Python | Java | C++ | C | C# | PHP | JavaScript
- Frameworks: Pytorch | Tensorflow | ONNX | Triton | Flask | Django | Torchserve | SpringBoot | Laravel
- Tools: Docker | Git | MySQL | Jenkins | Latex

#### Reference

#### Assoc. Prof. Sami Souihi

- Networks & Telecommunications Department, Paris-Est Créteil University (UPEC), France
- Co-leader of the Tincnet/LISSI/UPEC research team
- Visiting Researcher, CEA/LIST, Université Paris-Saclay
- Contact: sami.souihi@u-pec.fr

#### Dr. Kim Anh Nguyen

- Director of Virtual Assistant Technology Division, Vingroup Big Data Institute, Vietnam
- PhD, Computer Science, University of Stuttgart, Germany
- Contact: v.anhnk9@vinbigdata.org

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## Dr. Van Huy Nguyen

- Director of Speech Processing Department at Vingroup Big Data Institute, Vietnam
- Director of Information Technology Division, Thai Nguyen University of Technology, Vietnam
- Contact: v.huynv22@vinbigdata.org