

Vo Ngoc Sang

Machine Learning/AI Engineer, Renn Labs, Ho Chi Minh City, Vietnam

sangngoc27042001@gmail.com — +84 707083371 — www.linkedin.com/in/vongocsang-ai-ml — Personal Website — GitHub

RESEARCH INTERESTS

Applications that employ Artificial Intelligence, Machine Learning, Computer Vision, Natural Language Processing, Generative AI

EDUCATION

Ho Chi Minh City University of Technology - Viet Nam National University Ho Chi Minh City

Bachelor of Engineering in Computer Science

Sep 2019 — June 2023

Cumulative GPA: 3.5/4.0 (8.4/10)

Thesis: Hand Gesture Recognition for Game-based Hand Rehabilitation

PUBLICATIONS

Ngoc-Thanh Nguyen, Xuan, Sang Ngoc Vo, and Hoang-Anh Pham (2024). “Mental Chatbot Application Using Retrieval Augmented Generation”. In: *Inventive Communication and Computational Technologies*. Ed. by G. Ranganathan, George A. Papakostas, and Yong Shi. Singapore: Springer Nature Singapore, pp. 363–375. ISBN: 978-981-97-7710-5.

Nguyen, Trong-Nghia et al. (2024). “A Study on Deep Graph Neural Networks for Security Vulnerabilities Detection in Web Applications”. In: *Future Data and Security Engineering. Big Data, Security and Privacy, Smart City and Industry 4.0 Applications*. Ed. by Tran Khanh Dang, Josef Küng, and Tai M. Chung. Singapore: Springer Nature Singapore, pp. 123–137. ISBN: 978-981-96-0434-0.

Vo, Ngoc Sang et al. (2024). “Enhancing AI Chatbots for Mental Health Support: A Comprehensive Approach”. In: *Proceedings of the 17th Multi-Disciplinary International Conference on Artificial Intelligence (MIWAI 2024)*. Lecture Notes in Artificial Intelligence. Accepted and presented, to be published. Springer.

Vo, Ngoc-Sang, Ngoc-Thanh-Xuan Nguyen, Gia-Phat Le, et al. (June 2024). “An Efficient Model on AIoT Devices for Trash Classification Applications”. In: *SN Computer Science* 5.5, p. 630. ISSN: 2661-8907. DOI: 10.1007/s42979-024-02988-x. URL: <https://doi.org/10.1007/s42979-024-02988-x>.

Vo, Ngoc-Sang, Ngoc-Thanh-Xuan Nguyen, Tan-Phuoc Pham, et al. (2024). “Beyond Textbooks: A Novel Workflow for Customized Vocabulary Sheet Generation with Large Language Models”. In: *Intelligence of Things: Technologies and Applications*. Ed. by Nhu-Ngoc Dao et al. Cham: Springer Nature Switzerland, pp. 208–220. ISBN: 978-3-031-75596-5.

STANDARDIZATION TESTS

International English Language Testing System (IELTS)

17 Oct 2024 – 17 Oct 2026

Overall: 7.5, Listening: 8.5, Reading: 8.5, Writing: 7.0, Speaking: 6.5

Graduate Record Examination (GRE)

8 Nov 2024

Score: 321/340, Verbal Reasoning: 151/170, Quantitative Reasoning: 170/170

WORK EXPERIENCE

Renn Labs

Ho Chi Minh City, Vietnam

Machine Learning/AI Engineer

Jan 2024 — Present

- Developing Generative AI applications for both internal products and outsourcing, with a focus on the investment sector.
- Building ETL data pipelines using Mage-ai to process sequential AI tasks.
- Implementing AI utilities to create a database for Limited Partners.
- Utilizing AWS services, including EC2, Lambda, Step Functions, and AWS Copilot, to deploy AI applications.

Cyber Logitech Vietnam

Ho Chi Minh City, Vietnam

Machine Learning/AI Researcher

June 2022 — Sep 2023

- Conducting research on T-shirt design using Generative AI.
- Developing pipeline for shipping container code detection and recognition.
- Organizing seminars and conducting research on new topics such as Graph Neural Networks, Diffusion Models, Large Language Models, etc.

Quy Nhon AI - FPT Software

Quy Nhon, Vietnam

Machine Learning/AI Intern

Nov 2021 — June 2022

- Performing machine learning tasks such as data pre-processing, model evaluation, and summarizing research papers.
- Deploying AI models using the “NVIDIA Triton Inference Server.”

SKILLS

Programming Languages: Python, C++, JavaScript, SQL, Dart

Machine Learning & AI Frameworks: LangChain, PyTorch, TensorFlow, Scikit-learn, Transformers, NumPy, Pandas

AI Tasks: Image Classification, Object Detection, Image Segmentation, OCR, Head Pose Estimation, Post-OCR Parsing, Question Answering, Text Classification, Retrieval-Augmented Generation (RAG), Graph Neural Network

Web Development: Flask, Django, FastAPI

Cloud & DevOps: Amazon Web Services (EC2, SNS, SQS, SES, S3, Lambda, Step Functions, AWS Copilot), Mage-AI (ETL), Celery (Job Scheduling)

Certificates

- IBM Data Science Professional Certificate
- AWS Cloud Technology Consultant
- Generative AI with Large Language Models

INTERNATIONAL ACTIVITIES & EXCHANGE PROGRAM

Summer School on "Modern Machine Learning: Foundations and Applications" 11/09/2023–15/09/2023
Ha Noi University of Science and Technology

- Among 40 excellent candidates nationwide receiving scholarships for tuition, accommodation, and transportation during the program.
- Accessing lectures on various topics from renowned experts: large language models, foundation models, diffusion models, overparameterized models, and multimodal learning.
- **Website:** <https://soict.hust.edu.vn/summer-school/>

US-ASEAN-Science, Technology, and Innovation Cooperation Annual Conference September 2023
Arizona State University

- Having project selected to be presented at the STIC Research and Publishing Poster Showcase during the STIC annual conference, in Jakarta Indonesia.

2023 International PBL Workshop August 2023
Taipei Tech - National Taipei University of Technology, Taiwan

- Among one of 10 university students selected to participate in the program in Taiwan.
- Learning about "design thinking" and relevant knowledge to implement an autonomous vehicle doing a specific task.

Temasek Foundation Specialists' Community Action and Leadership Exchange Sep 2022 – March 2023
Temasek Foundation: TF SCALE, a program promoting mutual understanding, cross-cultural networks, and leadership skills among potential future Asian leaders.

- Among one of 15 university students selected to participate in the program in Singapore.
- Learning about the history and culture of Singapore while engaging in a hands-on project on Design Thinking.

Participant - 2022 ASEAN-Korea We Change Academy 1 Oct 2022 – 12 Nov 2022
The National Council of Youth Organizations in Korea

- Among 40 youths from 10 ASEAN countries selected for the program online.
- Exploring and discussing ASEAN-Korea social, historical, cultural, environmental, and foreign relations.

SOCIAL ACTIVITIES

Volunteer - SOS Children's Villages Vietnam Jun 2020 – Dec 2023

- Donating money, clothes, and books for children at SOS Children's Village.
- Teaching English and playing with the children, motivating them with future orientation.

Participant - Engineering Projects in Community Service Nov 2020 – Dec 2021
Arizona State University & Dow Vietnam LLC

- Gaining knowledge on implementing STEM ideas in community service projects.
- Developing soft skills such as communication and presentation.

Leader of Academic Team - OISP English Club Aug 2019 – Sep 2022
Ho Chi Minh City University of Technology

- Hosting English workshops for students.
- Recruiting members for the academic team.

Participant - The Night of Jingle Bells Dec 2019
H.O.P.E Club - Ho Chi Minh City University of Technology

- Assisting in preparing cooking ingredients.
- Distributing charity meals to homeless individuals.

AWARDS

- Consolation Prize - The 25th Euréka Student scientific research award** Nov 2023
Having **two** projects to be selected in the final round of The 25th Euréka Student Scientific Research Award - the award acknowledges and promotes nationwide student research, innovation, and creativity, therefore to enhance education and contribute to national development.
- First Prize - SonTa Foundation: Community Innovation Competition** July 2023
Winning the First Prize in the Community Innovation Competition 2023, organized by Sonta Foundation, with the project of AI application solution for game-based hand rehabilitation.
- Second Prize - The 12th OISP Science and Technology Symposium (OSTS) for students** July 2023
Winning the second prize in the 12th OSTs for students for submitting one of the most outstanding research contributions.
- Top 6 - Microsoft APAC AI for Accessibility Hackathon Vietnam 2023** May 2023
Among the top 6 finalists with "BK Hand Rehab Solution" at the Microsoft APAC AI for Accessibility Hackathon, an annual cross-country university competition to develop solutions for nonprofits serving people with disabilities.
- Student with Excellent Achievements in Scientific Research & Academic Competition 2022** Jan 2023
Among students honoured with the Ho Chi Minh City University of Technology Award 2022, celebrating exceptional accomplishments in scientific research and academic competitions.
- Top 20, Consolation Prize - Bach Khoa Innovation Competition 2022** Aug 2022
Winning the Consolation Prize in Bach Khoa Innovation: Major annual event promoting entrepreneurship and innovation among students in Ho Chi Minh City.

SCHOLARSHIPS

- EVN scholarship** Sep 2023
Among students receiving the EVN Scholarship, which is a program sponsored by Vietnam Electricity, in which 1000 scholarships, each worth VND 10 million, will be awarded to Vietnamese university students from 2022 to 2025.
- Coca Cola Merit 2023 STEM Scholarship Program** June 2023
Among 10 students in Vietnam receiving the Coca-Cola Merit Scholarship 2023, which provides financial aid and supports passionate STEM students in pursuing their dreams.
- Engineering and Technology Scholarship (E&T)** May 2023
Among students receiving the Sunflower Mission STEM Scholarship in Vietnam, which is for those with technical excellence and leadership potential based on essays and interviews reviewed by a team of engineers.
- OISP Scholarships** Several semesters
Among students with scholarships for those who achieve a GPA in the top 10% of the faculty at the end of semesters.

REFERENCES

- Asst. Prof. Dr. Thi Tran**
Assistant Professor of Management Information Systems, Binghamton University School of Management
E-mail: ttran9@binghamton.edu
Phone: 607-777-2960
- Assoc. Prof. Dr. Pham Hoang Anh**
Vice Dean of the Faculty of Computer Science and Engineering, Ho Chi Minh City University of Technology - VNUHCM
E-mail: anhpham@hcmut.edu.vn
Phone: +84 967 333 820
- Dr. Vo Thanh Hang**
Lecturer of the Faculty of Environment and Natural Resources, Ho Chi Minh City University of Technology - VNUHCM
E-mail: hang_vo Thanh2003@hcmut.edu.vn
Phone: +84 838 639 682
- Mr. Lim Wee Teck**
Lecturer of School of Information, Nanyang Polytechnic, Singapore
E-mail: Lim.We.Teck@nyp.edu.sg
Phone: +65 6550 1656