

Nguyen Manh Son

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Research Interests

- Artificial Intelligence for Science
- Machine Learning and Graph Deep Learning
- Optimization
- Drug Discovery and Development
- Network Pharmacology
- Analytical Chemistry

Education

Vietnam National University - Hanoi University of Science <i>GPA: 3.50</i>	Hanoi, Vietnam 2021 - 2025
Samsung Innovational Campus - National Innovation Center <i>Artificial Intelligence</i>	Vietnam 2024 - 2024

Research Experience

AI - Analytical Chemistry Laboratory <i>Vietnam National University - Hanoi University of Science</i>	November 2023 – Present Hanoi, Vietnam
Natural Products Chemistry Laboratory <i>Vietnam National University - Hanoi University of Science</i>	June 2023 – Present Hanoi, Vietnam
BioChemistry Laboratory - Institute of Natural Products Chemistry <i>Vietnam Academy of Science and Technology (VAST)</i>	June 2023 – March 2024 Hanoi, Vietnam
Computational Chemistry Laboratory <i>Vietnam National University - Hanoi University of Science</i>	June 2022 – May 2023 Hanoi, Vietnam

Teaching

Graduate Teaching Assistant

- CH35 – Statistics and Applied Mathematics for Chemistry (2025).
- CH34 – Chemometrics in Analytical Chemistry (2024).
- CH34 – Statistics and Applied Mathematics for Chemistry (2024).
- CH33 – Statistics and Applied Mathematics for Chemistry (2023).

Undergraduate Teaching Assistant

- CHE2129 – Advanced Analytical Chemistry (2024).
- CHE2129 – Advanced Analytical Chemistry (2025).

Publications

Papers

- **Nguyen Manh Son**, Nguyen Duc Phong, Bui Xuan Thanh, Ta Thi Thao, Le Thi Hong Hao, Nguyen Duc Thanh. "Applications of machine learning coupled with computer vision, electronic nose and untargeted analysis for food quality control". Vietnam Journal of Food Control. vol. 7, no. 3, pp. 313-328, 2024.
- Nguyen Duc Phong, **Nguyen Manh Son**, Nguyen Manh Ha, Bui Xuan Thanh, Le Thi Hong Hao, Ta Thi Thao, Nguyen Thi Van Anh, Nguyen Duc Thanh. "Machine learning and deep learning models applied to identification and classification of mango". Vietnam Journal of Food Control. vol. 7. no. 3. 2024.
- Nguyen Duc Phong, **Nguyen Manh Son**, Nguyen Dieu Linh, Nguyen Thi Minh Loi, Bui Xuan Thanh, Pham Gia Bach, Le Si Hung, Ta Thi Thao. "Multivariate regression models based on UV full spectra for the simultaneous determination of Tetracycline, Penicillin G and Cephalexin in different dosage forms". Journal of Analytical Sciences, vol. 30. no. 2. 2024.

Conferences

- **Nguyen Manh Son**, Do Ngoc Thuy, Nguyen Thi Huong, Le Ngoc Hung, Phung Van Trung, Ta Thi Thao, Nguyen Dang Toan Chuong. *"UHPLC-QTOF-MS based metabolomics, cytotoxicity against HT29 cells and molecular docking study for Peliosanthes micrantha rhizomes"*. 5th International Conference on Applied Science and Engineering, 2025.
- **Nguyen Manh Son**, Nguyen Duc Phong, Bui Xuan Thanh, Le Thi Hong Hao, Ta Thi Thao, Nguyen Duc Thanh. *"Applications of Machine Learning and Computer Vision Combined with Electronic Nose and Untargeted Analysis in Food Quality Control"*. International Food Control Conference, 2024.
- **Nguyen Manh Son**, Nguyen Duc Phong, Nguyen Quoc Hieu, Nguyen Van Dai, Tran Khanh Du, Vu Tien Dung, Ta Thi Thao, Bui Xuan Thanh, Nguyen Trong Hieu, Vu Duong, Nguyen Thi Van Anh, Nguyen Duc Thanh. *"Predicting Orange's Sweetness using Deep Learning Coupled with Computer Vision"*. International Food Control Conference, 2024.
- Nguyen Duc Phong, **Nguyen Manh Son**, Nguyen Manh Ha, Bui Xuan Thanh, Le Thi Hong Hao, Ta Thi Thao, Nguyen Thi Van Anh, Nguyen Duc Thanh. *"Machine learning and deep learning models applied to identification and classification of mango"*. International Food Control Conference, 2024.

Skills

Programming Languages: Python, R, Swift.

Frameworks: PyTorch, TensorFlow, dgl, sklearn, Keras, NetworkX, NetworkKit, graph-tool, Bokeh, rdkit, Optuna, Gradio, Matplotlib, Plotly, Polar, Numpy, SciPy, Pandas, LIME.

Awards

- First Prize, Poster Presentation Award, International Food Control Conference, 2024.
- Consolation Prize, Poster Presentation Award, International Food Control Conference, 2024.
- Academic Encouragement Scholarship, 2024.
- Second Prize, Student Science Research Award 2024, Department level.
- Third Prize, Student Science Research Award 2024, School level.
- VietChem Scholarship, 2024.
- Students Achieve Excellent Academic Results, 2023.
- Student with Five Good Merits, City level, 2023.
- Student with Five Good Merits, VNU level, 2023.
- Student with Five Good Merits, School level, 2023.
- Outstanding Student with Five Good Metrics, School level, 2023.
- Students Achieve Excellent Academic Results, 2022.
- Outstanding Young Person, School level, 2022.

Outeach Experience

HUS Chemistry Club, VNU - Hanoi University of Science

- Member of the board of directors.
- Lead and product ChemHUS-Sharing podcast.

The Dolittles Project - The Animal Rescue Project