Bao Nguyen

Website | 📱 +84 855845559 | @ Gmail | 🔗 LinkedIn | ⭘ GitHub | Google Scholar | 📍 Hanoi, Vietnam

EDUCATION

Hanoi University of Science and Technology — Hanoi, Vietnam

*Bachelor in Computer Science (Talented Programme); **CPA: 3.85/4.00*** — *Sep 2019 – Sep 2023*

- Thesis: Multi-agent reinforcement learning strategy to maximize the lifetime of WRSNs.
- Advisor: Prof. Huynh Thi Thanh Binh
- Honors: Excellent (1st class honors).

Van Giang High School — Van Giang, Hung Yen

*High School Diploma; **GPA: 9.0/10.0*** — *Sep 2016 – Sep 2019*

WORK EXPERIENCE

VinUniversity — Hanoi, Vietnam

Research Assistant — *April 2022 – Present*

- Advisor: Prof. Viet Anh Nguyen, Prof. Khoa Doan

Hanoi University of Science and Technology — Hanoi, Vietnam

Research Assistant — *Jul 2022 – Apr 2023*

- Advisor: Prof. Huynh Thi Thanh Binh

PUBLICATIONS

Bao Nguyen, Binh Nguyen, Viet Anh Nguyen. Bellman Optimal Step-size Straightening of Flow-Matching Models. International Conference on Learning Representations (ICLR), 2024.

Bao Nguyen, Viet Anh Nguyen. Efficient Failure Pattern Identification of Predictive Algorithms. In Conference on Uncertainty in Artificial Intelligence (UAI), 2023.

Nguyen Thanh Long, Tran Thi Huong, **Nguyen Ngoc Bao**, Huynh Thi Thanh Binh, Phi Le Nguyen, Kien Nguyen. Q-learning-based distributed multi-charging algorithm for large-scale WRSNs. In Nonlinear Theory and Its Applications Journal, IEICE, 2023.

Le Van Cuong, **Nguyen Ngoc Bao**, Nguyen Khanh Phuong, Huynh Thi Thanh Binh. Dynamic perturbation for population diversity management in differential evolution. In Proceedings of the Genetic and Evolutionary Computation Conference Companion (GECCO), 2022.

Tran Thi Huong, **Nguyen Ngoc Bao**, Ngo Minh Hai, Huynh Thi Thanh Binh. Effective partial charging scheme for minimizing the energy depletion and charging cost in wireless rechargeable sensor networks. In IEEE Congress on Evolutionary Computation (CEC), 2021.

Le Van Cuong, **Nguyen Ngoc Bao**, Huynh Thi Thanh Binh. A multi-start local search algorithm with l-shade for single objective bound constrained optimization. Report at Competition on Single Objective Bound Constrained Optimization in the Genetic and Evolutionary Computation Conference Companion (GECCO), 2021.

PREPRINTS

Bao Nguyen, Binh Nguyen, Hieu Trung Nguyen, Viet Anh Nguyen. Generative Conditional Distributions by Neural (Entropic) Optimal Transport. Under Review.

Duy Nguyen, **Bao Nguyen** and Viet Anh Nguyen. Cost Adaptive Recourse Recommendation by Adaptive Preference Elicitation. Under Review.

Hue Thi Tran, **Bao Nguyen**, Nguyen Tran Nhat Quoc, Pham Phu Manh, Nguyen Khanh Phuong, Huynh Thi Thanh Binh, Dang Quang Thang. The Vehicle Routing Problem with Drones and Flexibility Demands. Under Review.

Bao Nguyen, Tran Thi Huong, Huynh Thi Thanh Binh, Le Trong Vinh. Asynchronous multi-agent reinforcement learning-based general charging scheme for connected target coverage maximization. Under review.

Tran Thi Huong, **Bao Nguyen**, Vo Khac Hiep, Le Trong Vinh, Huynh Thi Thanh Binh. Adaptive periodic charging scheme using hybrid fuzzy state-based reinforcement learning in WRSNs. Under review.

PROJECTS

Generative AI Technologies for Gynecological Healthcare in Vietnam | *Link*
- This project funded by The Bill & Melinda Gates Foundation aims to build a conversational AI chatbot to scale up gynecological healthcare support for women and LGBT+ communities in Vietnam

Bot game MarioBros based on imitation learning and reinforcement learning | *Github*
Stock Price Prediction for Vietnamese stock market | *Github*

AWARDS & ACHIEVEMENTS

Top 13 out of 216 in the Vietnam Winter Alphathon 2023	Hanoi, Vietnam
WorldQuant Brain	*Sep 2023*
The third place in the Face Analysis Challenge	Hanoi, Vietnam
PIXTA Vietnam, Cohost AI và Viblo	*Sep 2023*
Runners-up in NESTQUANT Tournament	Hanoi, Vietnam
NestQuant Incorporation	*Jul 2023*
UAI conference scholarship	Carnegie Mellon University, Pittsburgh, PA, USA
Association for Uncertainty in Artificial Intelligence	*Jun 2023*
Top 1% International Quant Championship 2023	Hanoi, Vietnam
WorldQuant Brain	*Apr 2023*
Study encouragement scholarship	Hanoi, Vietnam
Hanoi University of Science and Technology	*Jul 2021, Jan 2022, Jun 2022, Jan 2023*
Scholarship from Lotte Corporation	Hanoi, Vietnam
Lotte Corporation	*Jun 2022*
The 4th prize of Competition Single Objective Bound Constrained Optimization	New York, US
Association for Computing Machinery Special Interest Group (SIGEVO)	*Aug 2021, Jun 2022*
Scholarship from Vietnam Gas Corporation	Hanoi, Vietnam
Vietnam Gas Corporation	*Jun 2021*
Top 5 students with highest scores in National University Entrance Exam	Hanoi, Vietnam
Vietnam Ministry of Education	*Sep 2019*
The Silver Medal of Mathematics National Exam	Vietnam
Vietnam Ministry of Education	*Jan 2017*
The 3th place in the Science and Technology National Contest	Vietnam
Vietnam Ministry of Education	*Jan 2017*

Licenses & certifications

IELTS Academic 7.0 (All skills are above 6.0)   Hanoi, Vietnam
British Council   *Issued Nov 2023 · Expires Nov 2025*

TOEIC 900   Hanoi, Vietnam
IIG Vietnam   *Issued Sep 2023 · Expires Sep 2025*

Skills

Programming: Python, C, C++, Java, MATLAB, SQL

Technologies: Pytorch, TensorFlow, Git, Docker, SSH, Spark, Hadoop

Languages: Vietnamese (Native), English (Intermediate)

Professional services

Reviewer at NEURIPS(2023), ICLR(2024)