# Ngoc Bui

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## EDUCATION

- **Ph.D. in Computer Science** *2023 – present*
  *Yale University*
- **M.S. in Data Science** *2021 – 2023*
  *Hanoi University of Science and Technology*
  - GPA: 3.9/4.0, Major GPA: 4.0/4.0.
- **Engineer in Computer Science** *2016 – 2021*
  *Hanoi University of Science and Technology (HUST)*
  - GPA: 3.67/4.0, Major GPA: 3.88/4.0.
  - Honors: Excellent ( $\approx$ 1st class honors).
  - Thesis: A Deep Reinforcement Learning based Online Charging Scheme for Target Coverage and Connectivity in WRSNs.

## PUBLICATIONS

- Duy Nguyen, **Ngoc Bui**, Viet-Anh Nguyen. "Feasible Recourse Plan via Diverse Interpolation". *AISTATS*, 2023.
- Duy Nguyen, **Ngoc Bui**, Viet-Anh Nguyen. "Distributionally Robust Recourse Action". *ICLR*, 2023.
- **Ngoc Bui**, Duy Nguyen, Viet-Anh Nguyen. "Counterfactual Plans under Distributional Ambiguity". *ICLR*, 2022.
- Tuan-Duy Hien Nguyen, **Ngoc Bui**, Duy Nguyen, Man-Chung Yue, Viet Anh Nguyen. "Robust Bayesian Recourse". *UAI*, 2022.
- **Ngoc Bui**, Phi Le Nguyen, Viet Anh Nguyen, Phan Thuan Do. "A Deep Reinforcement Learning-based Adaptive Charging Policy for WRSNs". IEEE *MASS*. 2022.
- **Ngoc Bui**, Tam Nguyen, Binh Huynh Thi Thanh, and Trong Vinh Le. "A phenotype-based multi-objective evolutionary algorithm for maximizing lifetime in wireless sensor networks with bounded hop". *Soft Computing*, 2023.

## UNDER REVIEW

- **Ngoc Bui**, Duy Nguyen, Kim-Cuc Nguyen, Man-Chung Yue, and Viet-Anh Nguyen. "Covariance-Robust Minimax Probability Machines for Algorithmic Recourse". under review.

## EXPERIENCES

- **Research Resident** *August 2021 - July 2023*
  *Machine Learning group - VinAI Research*
  - Work under the supervision of Dr. Viet Anh Nguyen, focusing on Robust & Trustworthy ML, studying different paradigms of explanation methods for machine learning models and their robustness.
  - Applied Rotation Project: Interactive Tool for 3D Point Cloud Segmentation.
- **Research Assistant** *December 2019 - June 2020*
  *Data Science Lab - HUST*
  - Study the Vietnamese address standardization problem that recognizes and normalizes free-form addresses into a common standard format.

- **AI Research Intern** *July 2019 - October 2019*
  *IBM Vietnam*
  - Applying PowerAI Vision to visual inspection problems in the car manufacturing process to detect dirt, and dust defects in the car body after painting.

## AWARDS & HONORS

- Honorable Mention in INFORMS Undergraduate Operations Research Prize. *2022*
- Best Thesis Presentation Award. *2021*
- Problem Winner in ASEAN-India Hackathon. *2021*
- Third prize in ACM/ICPC Asia - Ho Chi Minh Regional. *2017*
- Third prize in Vietnam Olympiad in Informatics. *2016*

## TEACHING

- Applied Algorithms classes, *HUST* *2019 - 2021*

## OPEN-SOURCE PROJECTS

- **GeneticPython** *2020*
  A simple and friendly Python framework for (multi-objective) genetic-based algorithms.
  *pypi*: `https://pypi.org/project/geneticpython/`
- **SCOSS** *2020 – 2021*
  SCoSS (Source Code Similarity System) is an automatic system for determining the similarity of source codes focusing on programming classes and competitive programming contests.
  *pypi*: `https://pypi.org/project/scoss/`
- **Conmato** *2020*
  A Command Line Interface (CLI) for Codeforces Management Tools that helps the coach to manage Codeforces groups, which is a platform to organize and run programming contests, easier.
  *pypi*: `https://pypi.org/project/conmato/`

## PROFESSIONAL SERVICES

- Reviewer at AISTATS 2022/2023, FaCCT 2023, UAI 2023, NeuRIPS 2023.