

Luong Thai Khang

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SUMMARY

B.Sc. candidate in Computer Science at Hanoi University of Science and Technology, graduating in July 2026. My research focuses on bandits, reinforcement learning, and decision-making under uncertainty. I am first author of an ICML 2026 accepted paper on variance-driven exploration, and I am seeking Master/Ph.D. opportunities and research collaborations in bandit theory, reinforcement learning, offline/robust decision-making, and statistical learning theory.

EDUCATION

- **Hanoi University of Science and Technology (HUST)** 2022 – Jul. 2026
B.Sc. in Computer Science Hanoi, Vietnam
 - GPA (CPA): 3.73/4.0

PUBLICATIONS

- **Variance Driven Exploration: A Provable and Efficient Methodology for Pure Exploration in Highly Stochastic Environments** 2026
Khang Luong, Nam Nguyen, Hoang Ta, Hung The Tran, Tuan Dam. Accepted at ICML
- **Nearly Optimal Fixed-Confidence Best-Arm Identification with 1-Bit Feedback** 2026
Khang Luong, Dinh Thai Son, Hoang Ta, Hung The Tran, Tuan Dam. Submission to NeurIPS

EXPERIENCE

- **HUST Data Science Laboratory** Feb. 2025 – Present
Research Member Hanoi, Vietnam
 - Conduct research on machine learning and decision intelligence under uncertainty.
- **VinDynamics** Jun. 2025 – May 2026
AI Intern (Robotics) Hanoi, Vietnam
 - Work on perception and control pipelines for robotic grasping and hand-object interaction.
- **FPT Quantum AI & Cyber Security Institute** Jun. 2026 – Present
Research Member Hanoi, Vietnam
 - Conduct research on decision intelligence under uncertainty.

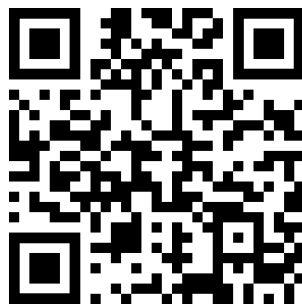
PROJECTS

- **Variance Driven Exploration (VarDE)**
HUST Data Science Laboratory
 - Derive influence-weighted variance-driven sampling rules for exploration frameworks, providing theoretical guarantees on variance decay and simple regret.
 - Apply VarDE to Best-Arm Identification, Monte Carlo Tree Search, and Best-Policy Identification.
- **Best-Arm Identification (BAI) with 1-Bit Feedback**
HUST Data Science Laboratory
 - Developed a BAI algorithm with 1-bit mean-estimation, matching worst-case lower bound for 1-bit feedback.
 - Currently extending to instance-dependent bounds and asymptotically optimal parametric algorithms.
 - Applying 1-bit mean-estimation to Federated Learning to achieve privacy, corruption robustness, and communication efficiency.
- **Offline Policy Evaluation and Learning for Contextual Bandits**
FPT Quantum AI & Cyber Security Institute
 - Study distributionally robust offline contextual bandits under context shift and reward shift.
 - Develop pessimistic offline policy evaluation and learning methods based on optimal-transport DRO objectives.
- **Vision-Based Robotic Hand Teleoperation and Autonomous Manipulation**
VinDynamics
 - Develop a vision-based teleoperation system for dexterous robotic hand control.
 - Integrate visual perception with control policies for autonomous object manipulation.

SKILLS

- **Mathematics:** Probability Theory, Optimization, Linear Algebra, Calculus
- **Machine Learning:** Reinforcement Learning, Bandits, Deep Learning
- **Programming:** Python, PyTorch, TensorFlow, C++
- **Languages:** English (IELTS 7.0)

Online Profile



luongkhang04.github.io/profile