

KAPILAN BALAGOPALAN

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INTRODUCTION

My research focuses on sequential decision-making—including bandit algorithms, partial monitoring games, and reinforcement learning—with applications in fine-tuning and improving large language models and recommender systems. I have a strong foundation in theoretical machine learning and foundational models, complemented by hands-on experience in embedded C, C++, Python, Java, MATLAB, and API-level development for foundation models.

EDUCATION

University of Arizona, USA

Aug 2022 - present

PhD in Computer Science

Overall GPA: 3.67/4.0

University of Moratuwa, Sri Lanka

Feb 2014 - Jan 2018

B.S.(Hons) in Engineering

Department Electronic and Telecommunication Engineering

Overall GPA: 3.81/4.2

JOURNALS & CONFERENCES

- Fixed Budget is No Harder Than Fixed Confidence in Best-Arm Identification. (co 1st author: †) **Kapilan Balagopalan**†, Yinan Li†, Yao Zhao, Tuan Nguyen, Anton Daitche, Houssam Nassif, Kwang-Sung Jun. Submitted to **ICML'26**: International Conference on Machine Learning. 2026.
- Fixing the Loose Brake: Exponential Tail Bounds for Stopping Time in Best Arm Identification. (co 1st author: †) **Kapilan Balagopalan**†, Tuan Nguyen†, Yao Zhao†, Kwang-Sung Jun. **ICML'25**: International Conference on Machine Learning. 2025.
- Minimum Empirical Divergence for Sub-Gaussian Linear Bandits. **Kapilan Balagopalan**, Kwang-Sung Jun. **AISTATS'25**: International Conference on Artificial Intelligence and Statistics. 2025.
- Blind Equalization in the Presence of Co-channel Interference Based on Higher-Order Statistics. Wang, G., **Kapilan Balagopalan**., Razul, S.G. et al. **Circuits Syst Signal Process** **37**, **4150–4161** (2018). doi: 10.1007/s00034-017-0744-x

PROFESSIONAL EXPERIENCE

Amazon

May 2025 - August 2025

Applied Scientist Intern

Amazon, New York

Campaign intent detection using large language models and using the intents to recommend key-words for advertisers to create optimal campaigns.

Thales Digital Identity & Security

May 2020 - May 2022

Embedded Software Engineer

Thales DIS, Singapore

Development of Smart card OS for Telco, Secure Element, Transport and Banking applications to be deployed on micro controller chips.

London Stock Exchange Group
Hardware Acceleration Engineer

Feb 2018 - Feb 2020
LSEG Technology, Sri Lanka

Acceleration of time critical modules in exchange and trading platforms using FPGAs.

Temasek Laboratory, Nanyang Technological University
Research Assistant

Aug 2016 - Dec 2016
NTU, Singapore

Blind channel equalization of OQPSK signals under strong co-channel interference using higher order statistics.

TEACHING & VOLUNTEERING ROLES

- Reviewer
 - ICML 2026
 - ICLR 2026 Workshop: Test-time update
 - NeurIPS 2025 Workshop: Reliable ML from Unreliable Data
 - ICML 2025 second Workshop on Test-Time Adaptation: Putting Updates to the Test!
- Teaching Assistant
 - Spring 2025: CSC 445 Algorithms
 - Fall 2025: CSC 477/577 Computer vision