Ali Mortazavi

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Education

University of Victoria — Victoria, BC, Canada
Ph.D. in Computer Science, GPA: **9/9** — Jan 2021 – Expected Aug 2026

- Research focus: Game Theory, Sequential Prediction, Adaptive Machine Learning

Amirkabir University of Technology — Tehran, Iran
M.Sc. Artificial Intelligence — Sept 2017 – Sept 2020
B.Sc. Computer Software Engineering — Sept 2013 – Sept 2017

Publications

- Junpei Komiyama, Nishant Mehta, and Ali Mortazavi. "No-Regret Incentive-Compatible Online Learning under Exact Truthfulness with Non-Myopic Experts" *ACM Conference on Economics and Computation*, 2025.
- Ali Mortazavi, Junhao Lin, and Nishant Mehta. "On the Price of Exact Truthfulness in Incentive-Compatible Online Learning with Bandit Feedback" *International Conference on Artificial Intelligence and Statistics*. PMLR, 2024.
- Cristóbal Guzmán, Nishant Mehta, and Ali Mortazavi. "Best-Case Lower Bounds in Online Learning" *Advances in Neural Information Processing Systems*, 34 (2021).

Game Theory and Algorithmic Analysis Experience

PhD **Research Assistant** — Jan 2021 – Present
Machine Learning Theory Group, University of Victoria

- **Reputation-Based Sequential Forecasting** `(Game Theory, Information Elicitation)`
  - Co-designed a strategy-proof algorithm that sequentially aggregates forecasts over T rounds among reputation-seeking forecasters.
  - Contributed in proving the algorithm converges to the best forecaster at the optimal $1/\sqrt{T}$ rate. This result resolved an open question in the field.
  - Extended the analysis of the algorithm for the partial information (Multi-armed bandits) setting.
  - Published in ACM Conference on Economics and Computation **EC 2025**
- **On Aggregating the Selection-seeking forecasters advice** `(Incentives, Partial feedback)`
  - Investigated and identified the limitation of the only known strategy-proof sequential forecaster selector algorithm.
  - Used mathematical tools and statistical techniques to prove the inherent performance limitation of the algorithm.
  - Published in **AISTATS 2024**
- **Adaptive Decision-Making While Preserving Group Fairness** `(FTRL, Fairness)`
  - Contributed to identifying a class of algorithms with mathematically provable guarantees on preserving fairness without prior knowledge of demographic group sizes.
  - Characterized environments in which the decision maker can introduce the highest degree of disparity among groups.
  - Published and presented at **NeurIPS 2021**
- **Participatory Budgeting Problem** `(Voting, Representative Allocation)`
  - Surveyed existing areas of research and applied work on vote aggregation in the participatory budgeting problem with a focus on examining various notions of fairness and representative allocation rules. Presented the findings.

Applied Machine Learning Experience

- **Image Denoising and Segmentation** (Report, GitHub) `(Python, Image Processing)`
  Optimized image denoising and segmentation with Simulated Annealing and Markov Random Fields. Compared performance across HSV, RGB, and Grayscale color spaces.
- **Text Summarization** (Report, GitHub): `(Python, TensorFlow, NLP)`
  Developed a graph-based text summarization method using word2vec and PageRank. Evaluated the performance with word-level and sentence-level representations using ROUGE metrics.

Internship

Shanghai University of Finance and Economics — Shanghai, China
Research Internship at Institute for Theoretical Computer Science — August 2019 – September 2019

- Project: Applied various approximation and probabilistic techniques to measure the performance of a novel Online Stochastic Matching algorithm.

Teaching Experience

Teaching Assistant — Jan 2021 -
Computer Science Department — University of Victoria

- **Notable Responsibilities**: Designed and taught labs and tutorials, helped prepare new TAs with teaching tasks
- **Courses**: Algorithms and Data Structure II, Theory of Computation, Data Mining, Collective Decision-Making, Advanced Data Structure and Optimization, Machine Learning Theory.

Awards

- AISTATS 2025 Best Reviewer Award (Top 4% reviewers) 2025
- University of Victoria Graduate Awards for Top-Performing Students 2021-2024
- University of Victoria Graduate TA Award 2021-2024
- Donald Wagg Graduate Scholarship 2024
- Alexander and Helen Stafford MacCarthy Muir Graduate Scholarship 2024
- Jarmila Vlasta Von Drak Thouvenelle Graduate Scholarships 2024
- Charles S. Humphrey Graduate Student Award 2022
- UVic PhD Fellowship Award 2021-2022
- Ranked 3rd (out of 100) in terms of Cumulative GPA among students of computer engineering, 2013 Entrance 2017
- Awarded direct admission to the M.Sc. program in Artificial Intelligence at Amirkabir University of Technology as a Talented Undergraduate Student 2017

Technical Skills

Programming Languages: Python, Java, C++
Frameworks & Libraries: NumPy, Pandas, Matplotlib, TensorFlow, scikit-learn,

Volunteer Activities

Reviewer for ICML 2025, AISTATS 2025, NeurIPS 2024

References

- Prof. **Nishant Mehta**
  PhD Supervisor
  Email: nmehta@uvic.ca
  Homepage: https://web.uvic.ca/~nmehta

- Prof. **Valerie King**
  PhD Supervisory Committee
  Email: val@uvic.ca
  Homepage: https://webhome.cs.uvic.ca/~val