cucai 2023

Proceedings.

Canadian Undergraduate Conference on Artificial Intelligence

March 4–5 | Kingston ON

Foreword

The Canadian Undergraduate Conference on Artificial Intelligence (CUCAI) was hosted on March 4–5, 2023 in Kingston, ON, making its 1st in-person return since 2020. Since its inception, CUCAI has become the most prestigious undergraduate conference in Canada, brining together 335 bright minds this year. Highlights from this weekend include keynotes by Ivan Zhang, Raymond Lo, Wemba Opota, Allison Cohen, Iman Isla Bashir, & Nicole Lytle, workshops from RBC, Deloitte, and Accenture, as well as our flagship AI research showcase. During the showcase, students presented their findings in booths to conference attendees, industry sponsors, and top-level recruiters. Participating organizations included QMIND from Queen's University, Western AI from Western University, Wat.ai from the University of Waterloo, UVicAI from the University of Victoria, McGill AI Society from McGill University, UofT AI from the University of Toronto, & AIYU from York University.

We look forward to seeing more universities partake in CUCAI 2024. To find more about our mission, please visit: ***www.cucai.ca***

Awards

Of the 25 submissions, a shortlist of the top 10 papers were selected and forwarded to our selections team comprising of academics in the field of AI. Awards were evaluated on the basis of quality of work, novelty of the approach & goal, and overall quality of the paper.

Thank you to Ning Lu, Yuan Tian for your time and expertise in contributing to Canadian Undergraduate Conference on Artificial Intelligence.

Top Submissions

Wearable Brain-Computer Interface Paired with Large Language Model for Fast Speech Communication

Creating a Corn Yield Estimator: A Deep Learning Approach via UAV Imagery

Improving Public Transit Systems through Clustering and Polynomial Regression

Honourable Mentions

Quantum Convolutional Neural Networks

Monte Carlo Tree Search and Reinforcement Learning for a Four Player, Simultaneous Move Game

AGORA: a Language Model for Safe Speech-to-Text Conversion

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Sponsor Acknowledgement

We are forever grateful of all the support from our sponsors and industry partners who partook in executing the Canadian Undergraduate Conference on Artificial Intelligence 2023. Without this level of support, we wouldn't have been able to bring together 335 of Canada's brightest undergraduate talent to experience a weekend of keynotes, workshops, networking sessions, project showcases, and interactive Q&A sessions. The delegate experience at CUCAI 2023 was unforgettable; from the company booths, to the sponsored lunches, and the mentoring/guidance from industry leaders.

We would like to extend a special thank you to the Faculty of Engineering & Applied Science at Queen's University, who made a huge portion of this event possible and has actively supported both QMIND and CUCAI's core mission from inception. We were both proud and excited at the opportunity to bring CUCAI back to the Kingston area for the first time going virtual in 2020. We would also like to thank the National Research Council of Canada for supporting this year's initiative.

With the continuous support from global corporations, we hope to continue growing CUCAI's prestige and reputation in the AI space. We thank all sponsors for contributing to our mission.

BOREALIS AI
RBC Institute for Research

Vennify AI

Organizers

The Canadian Undergraduate Conference on Artificial Intelligence 2023 was organized by a team of exceptional undergraduates across various Canadian universities & institutions.

Leadership

Cooper Lloyd *Co-Chair*

Gonzalo Soto *Co-Chair*

Chris Gauthier *Co-Chair*

Spencer Hill *Advisor*

Olivia Xu *Advisor*

Marketing

Lejla Sain *Designer*

Alwin Raymundo *Designer*

Claire Cunningham *Social Media Coordinator*

Aren Jo *Photography & Video*

Jason Wei *Videographer*

Partnerships

Marcelo Chaman *Coordiantor*

Leo Mckee–Reid *Coordinator*

Jarett Dewbury *Speakers*

Logistics

Tung Pham *Coordinator*

Adi Groumoutis *Delegates*

Rabab Azeem *Volunteer*

Harley Latsky *Volunteer*