



The Canadian Undergraduate Conference on AI

Artificial intelligence. *Real change.*



DELEGATES PACKAGE

March 6-7, 2021

Online Conference

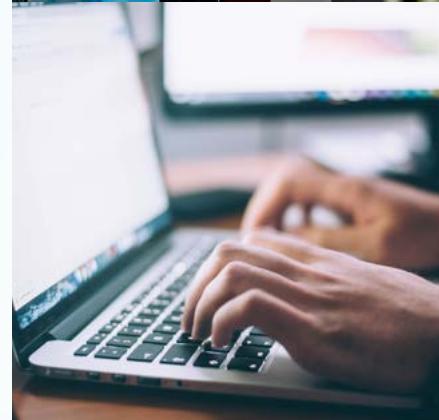
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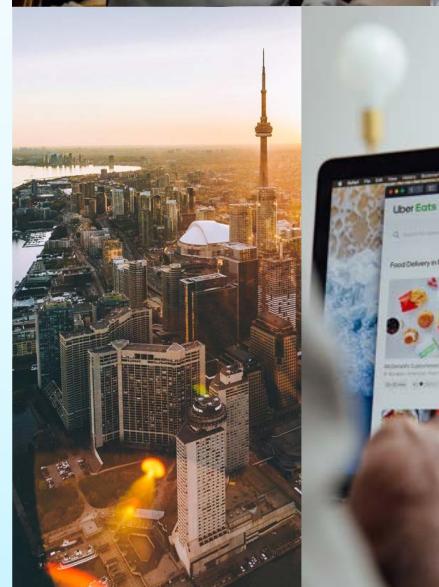
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Welcome to CUCAI 2021!

Introducing CUCAI

Welcome to the 2021 Canadian Undergraduate Conference on Artificial Intelligence (CUCAI)! We are excited to invite a diverse group of students from across Canada to take part in what will be two inspiring days of speeches, panel discussions with industry leaders and innovative workshops.

CUCAI aims to accelerate undergraduates along their journey in the fields of artificial intelligence, machine learning, and data science. By equipping our delegates with deep insight on today's most advanced technology, we hope to spark passion and a drive for change in the founders, principal researchers and leaders of tomorrow.

Thank you all for helping us develop a national platform for discussion, education, and collaboration. We hope you enjoy every moment.



Land Acknowledgement

Although this year the conference has gone online, we acknowledge the land we traditionally meet on in Toronto. This land is the traditional territory of many nations including the Mississaugas of the Credit, the Anishnabeg, the Chippewa, the Haudenosaunee and the Wendat peoples and is now home to many diverse First Nations, Inuit and Métis peoples. We also acknowledge that the city of Toronto is covered by Treaty 13 with the Mississaugas of the Credit. To acknowledge this traditional territory is to recognize the territory's significance for the Indigenous peoples who lived, and continue to live, upon it.

Event Schedule

Day One

All Times in EST

Saturday, March 06, 2020

**MAIN STAGE
9:00 - 9:15 AM**

Opening Ceremonies Day 1

Introducing CUCAI and what's in store for the weekend.

**MAIN STAGE
9:15 - 9:55 AM**

Speaker: Ron Bodkin

Applying AI Research

**MAIN STAGE
10:00 - 10:40 AM**

Speaker: Inmar Givoni

Journey Through The Past Decade of AI and ML Applications

**EXPO BOOTH
10:45 AM -
12:10 PM**

**Showcase: Design Teams & Student
Executives**

12:10 - 1:00 PM

Lunch Break

1:00 - 1:40 PM

WORKSHOP 1

Workshop:
**Google
Cloud**

WORKSHOP 2

Workshop:
DCL

WORKSHOP 3

Workshop:
bld.ai

**MAIN STAGE
1:45 - 2:30 PM**

Panel: Ethics in AI

Discussing relevant ethical issues in AI and their impacts.

**EXPO BOOTH
2:35 - 3:45 PM**

Showcase: Industry

Network with our sponsors and learn more about what they do!

**MAIN STAGE
3:50 - 4:30 PM**

Speaker: Laurence Moroney

TensorFlow State of the Union

**MAIN STAGE
4:30 - 4:45 PM**

Day 1 Wrap Up

Event Schedule

Day Two

All Times in EST

Sunday, March 07, 2020

**MAIN STAGE
10:00 - 10:15 AM**

Opening Ceremonies Day 2

Introducing what's in store for the day.

**MAIN STAGE
10:15 - 10:55 AM**

Speaker: David Hayes

Building an Outlier by Bringing Advanced Tech to Market

**MAIN STAGE
11:00 - 11:40 AM**

Speaker: Mark Caine

AI and the Sustainable Development Goals

**11:45 AM -
12:30 PM**

MAIN STAGE

**Panel: Women in AI
Leadership**

WORKSHOP 1

**Workshop: Google
Cloud #2**

**MAIN STAGE
12:35 - 1:30 PM**

Pitch Competition

1:30 - 2:15 PM

Lunch Break

**MAIN STAGE
2:15 - 3:00 PM**

Pitch Competition

**MAIN STAGE
3:10 - 3:55 PM**

Speaker: Shivon Zilis

The Future of Brain-Machine Interfaces to Connect Humans and Computers

**MAIN STAGE
4:00 - 4:30 PM**

Final Closing Ceremonies

**NETWORKING
4:30 - 5:30 PM**

Bonus Networking

Logistics

How to access Hopin and navigate the event page for all the different events, including the Main Stage tab for presentations, the Workshops tab for workshops, the Speed Networking Tab for virtual networking, and the Showcase Booths for the design team showcase and industry showcase.

Accessing Hopin

Once you've paid for your ticket via the link we sent you, you will receive an email granting access to our conference platform, Hopin. If you don't receive this email within an hour of purchase, please contact delegates@cuai.ca



Speakers, Panels, Pitch Competition

Access through the button “Main Stage” tab on the left side of the event page at scheduled times

- No audio/video access
- Ask questions in the chat



Workshops

Access through the “Workshops” tab on the left side of the event page at scheduled times

Join your preferred workshop and interact in the chat



Showcases

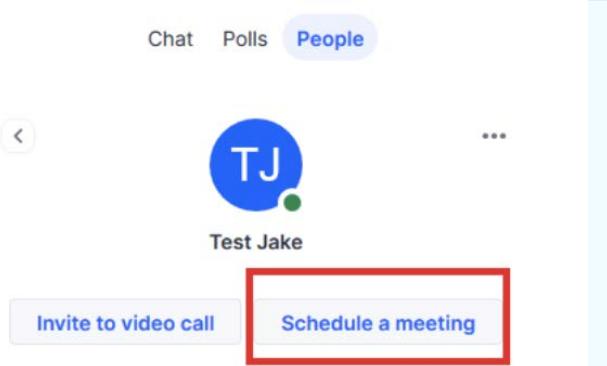
Access showcases through the “Showcase Booths” tab on the left side of the home pages during the scheduled showcase times

Browse the different booths and join any that catch your interest

In the booth, you will see the presentations of the given company or design team and you can interact with the presenters through the chat

If you wish, you may request to share your audio/video in the booth to ask a question. The presenters at the booth will be given the chance to accept your request and have you join with video on the screen

Logistics



Chat Polls **People**

TJ
Test Jake

Invite to video call Schedule a meeting

1-on-1 Networking

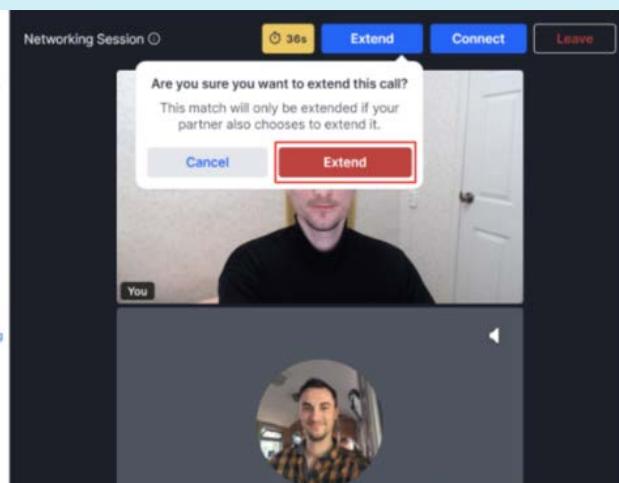
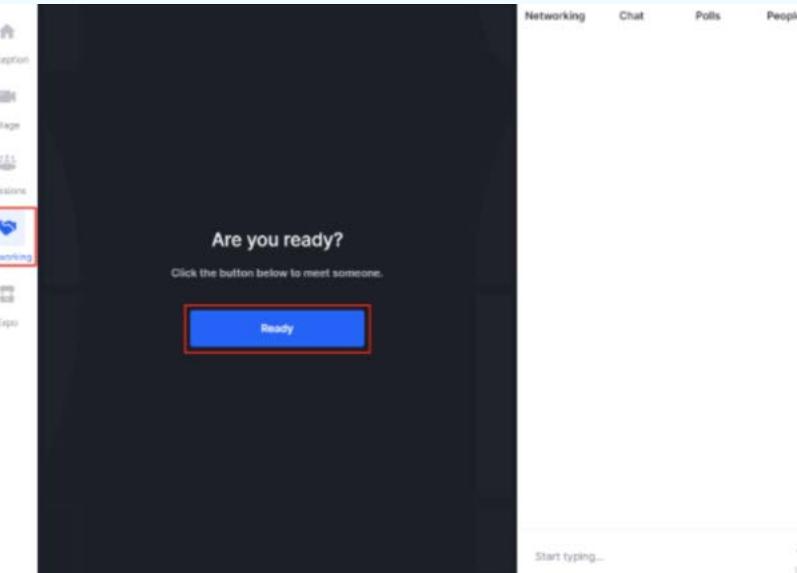
To schedule one-on-one calls with other members at CUCAI, go to the People tab or click on the person's profile in the chat. Learn more about 1-on-1 networking [HERE](#)

Speed Networking

Access through the “Networking” tab on the left side of the event page

Open throughout the whole conference

Click “Ready” button, then wait to be paired randomly with another delegate/industry member from CUCAI



When paired, you will have 3 minutes of time to network over video chat.

While chatting, you have the option to hit buttons to “Extend” the call, or “Connect” by exchanging contact information. Both parties must click these buttons in order for the functionality to process. Learn more about speed networking by watching our [video walkthrough](#)

Included Catering

All attendees will receive \$40 toward complimentary meals via Uber Eats. \$20 vouchers will be sent out each day to your email during the lunch break and will only be given to those in attendance as recorded by Hopin, so make sure to watch our events leading up to 12 PM (EST)!



Day 1 Speaker Bios



March 6
9:15 - 9:55 AM

Ron Bodkin

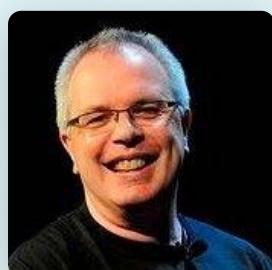
Ron is the VP of AI Engineering and CIO at Vector Institute and the Engineering Lead at the Schwartz Reisman Institute for Technology and Society, where he focuses on beneficial uses of AI. Previously, he's worked as a Technical Director in Google Cloud's CTO Office where he led strategic initiatives and worked with teams building explainable AI and fairness capabilities! He is also a serial entrepreneur, having founded multiple technology companies including Think Big Analytics and C-Bridge Internet Solutions!



March 6
10:00 - 10:40 AM

Inmar Givoni

Inmar is the Former Director Of Engineering at Uber where she's worked on bringing cutting-edge deep learning technologies to self-driving vehicles. She received her Ph.D. in computer science from UofT, specializing in machine learning. She has also had roles at companies like Microsoft, Altera (now Intel), Kobo, and Kindred AI where she has applied her technical background to create fantastic new developments. Not to mention her multiple registered patents and top-tier research publications on machine learning, computer vision, and computational biology. Inmar is also interested in any outreach opportunities for young women to encourage them to follow STEM career paths.



March 6
3:50 - 4:30 PM

Laurence Moroney

Laurence leads AI advocacy at Google where he works on making artificial intelligence more accessible to all. He's played an instrumental role in furthering AI education, teaching courses on TensorFlow through Coursera and TinyML through HarvardX. He is also a published author, having written multiple books on programming including AI and Machine Learning for Coders and The Definitive Guide to Firebase; he has also written comic books, screenplays, and science fiction novels!

Day 2 Speaker Bios



March 7
10:15 - 10:55 AM

David Hayes

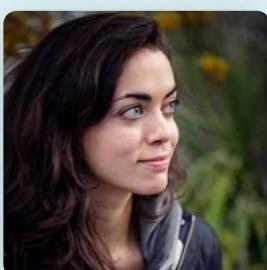
David is the founder and CEO of the Autonomous Vehicle Organization (AVO). AVO is a software company which focuses on improving safety for self-driving vehicles by developing technology focusing on the vehicle to pedestrian segment. He is an alumni of Queen's, having graduated with a degree in Mechanical Engineering; he also competed for the Canadian national sailing team for over 5 years!



March 7
11:00 - 11:40 AM

Mark Caine

Mark is currently the Lead for Artificial Intelligence & Machine Learning at the World Economic Forum. He has served in numerous public policy positions, such as Special Assistant for Energy and Economy at the African Union Commission in Addis Ababa (Ethiopia) from 2016-17 under the State Department's Fulbright-Clinton Public Policy Fellowship and Policy Advisor for Energy and Environment at the Foreign and Commonwealth Office (FCO) prior to that. Mark has worked on innovative policies at the intersection of technology, government, industry and society in addition to four publications on climate change and society's switch to clean energy!



March 7
3:10 - 3:55 PM

Shivon Zilis

Shivon is the Project Director at Neuralink's office of the CEO and has worked with Tesla and Open AI! Previously, she was a partner and founding member at Bloomberg Beta. She is a Fellow at UofT's Creative Destruction Lab, on the board of Vector Institute for Artificial Intelligence and Alberta Machine Intelligence Institute, and a charter member of C100; she also played hockey for Yale!

Panels

Women in AI Leadership Panelists

Moderated by Natalie Nova

Join our Women in AI leadership Panel at CUCAI on March 7th at 11:45 AM. We're bringing together a panel of leaders to share their experiences, the challenges they've faced, and what it takes for women to succeed in the field. We will also explore the interdisciplinary nature of AI and the unexpected roads it can lead us down. Don't miss this opportunity to be excited, inspired and empowered by this panel of amazing women!



**Caroline
Lair**

Founder & Cofounder,
The Good AI & Women in AI



**Shirin
Farrahi**

Principal Software Engineer,
Cadence Design Systems



**Ania
Halliop**

Former Senior Engineering
Manager, Uber ATG

Ethics in AI Panelists

Moderated by Catherine Wu

Join us and our amazing panelists as we discuss the importance and relevance of Ethics in AI on March 6th at 1:45pm! We will focus on the significance and impact of the rapidly advancing AI industry on our society and also explore concerns relating to major topics such as equity, deception, climate preservation, and privacy/security. Make sure to check out this incredible panel and bring your own questions as we dive into these challenging issues together!



**Valerie
Morignat**

Founder and CEO,
Intelligent Story LLC



**Rishi
Behari**

Lead Instructor - Professional
Communications, Smith School of
Business - MMAI



**Ron
Bodkin**

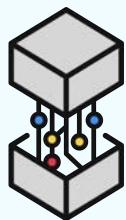
VP of AI Engineering and CIO,
Vector Institute

Design Teams

Since its inception in 2019, one of the cornerstone events at CUCAI has been the design showcase. The design showcase is a booth-style event providing delegates the opportunity to explore the world of AI at an undergraduate level.

Students from QMIND - Queen's AI Hub and Western AI are excited to provide an inside look into their work from the past 6 months. The showcase will be featuring projects representing all aspects of AI from natural language processing (NLP), computer vision, time-series analysis, reinforcement learning, classification, as well as cutting-edge research exploring the intersection of AI and advanced hardware. The research-based and industry-facing projects cover a broad range of sectors such as banking, retail, the environment and more.

Design teams will be presenting an outline of their work along with a demonstration showing the real world application of their models. The showcase exhibits the next generation of AI while pushing the boundaries of AI research done at an undergraduate level. The result of these projects is a talent pool with industry-level experience ready to advance the world of AI.



QMIND



Pitch Competition

In our second annual pitch competition, student-run AI ventures will be competing for non-dilutive funding from a **prize pool of \$10,000!** All the competing ventures this year were formed under the inQUBate program from QMIND.

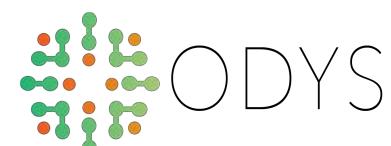
inQUBate is Canada's first student-run AI incubator. In its second year, inQUBate has taken on a staggering seven ventures in fields ranging from athletic development to human resources to energy/resources. Over our journey, aided by the program's executives and Advisory Board, the cohort has gone from ideation to market research to even obtaining sources of funding.

[Visit inqubate.ca](http://inqubate.ca)

Competing AI Ventures



Guroom.ai



Swym



Pitch Competition Judges



**Shingai
Manjengwa**

Director of Technical Education,
Vector Institute



**Dan
Desjardins**

Founder and CEO,
Distributed Compute Labs



**Emily
Campbell**

Co-Founder and CGO,
Backr



**David
Hayes**

Founder and CEO,
Autonomous Vehicle
Organization (AVO)

Sponsors

We wouldn't be able to host our conference without the help from our incredible sponsors. Thank you for your support in developing the future of Canadian AI!

Title Sponsor



FACULTY OF
ENGINEERING AND
APPLIED SCIENCE

Gold



Silver



Dunin-Deshpande
Queen's INNOVATION CENTRE



DISTRIBUTED
COMPUTE LABS



Google Cloud

A Message From Our Team

The CUCAI team wants to sincerely thank you for attending CUCAI 2021.

It's people like you that enhance and contribute to our vision of enabling AI accessibility for undergrad students. Our goal is for you to have an informative and constructive experience at this year's conference. We hope you learned something new, networked with someone from a different school or industry, engaged in an interesting conversation with another attendee or in a Q&A session, and most importantly, left CUCAI with new knowledge or experiences that are applicable in your academics or career. Upon the conference's conclusion, you are now a member of a national network of like-minded individuals, seeking to make positive change. Please continue to engage in our community online and in future events!

If you missed any of our speaker presentations, or want to rewatch them, they will be posted to our CUCAI [youtube channel](#). Additionally, all the design team project abstracts and results will be released in our conference proceedings, which will be posted to our [website](#)!



Berkeley Wilson
Co-Chair
Mechanical Engineering '21



Max Bennett
Co-Chair
Applied Mathematics '22



Parker Rowe
Marketing Coordinator
Computer Engineering '22



Katie Lu
Marketing Coordinator
Computing & The Creative Arts '21



Ellie Mehltretter
Delegates Coordinator
Mathematics '21



Jack Perry
Delegates Coordinator
Commerce '22



Catherine Wu
Logistics Manager
Biomedical Computation '22



Jack Grebenc
Logistics Coordinator
Mathematics & Computing '21



Will Stewart
Logistics Coordinator
Commerce '22