

## **Propose Knowledge Management Partnership On ETs (AI/ML, Data Science, Block Chain, IoTs, Cloud Computing etc.)**

### **Deep Mind Technology (1)**

#### **Description/Area of Focus**

We're a team of scientists, engineers, machine learning experts and more, working together to advance the state of the art in artificial intelligence. We use our technologies for widespread public benefit and scientific discovery, and collaborate with others on critical challenges, ensuring safety and ethics are the highest priority.

#### **About**

We started as an interdisciplinary team based in London, and have opened labs across the UK, USA, Canada, and France. DeepMind is home to scientific researchers, ethicists, program managers, game designers, and more. Together, we're solving some of the most fascinating challenges in AI today. If that sounds exciting, join us

**Links:** <https://deepmind.com/>

### **Open AI (2)**

#### **Description/Area of Focus**

OpenAI is a research laboratory based in San Francisco, California. Our mission is to ensure that artificial general intelligence benefits all of humanity. The OpenAI Charter describes the principles that guide us as we execute on our mission.

#### **About**

OpenAI is governed by the board of OpenAI Nonprofit, which consists of OpenAI LP employees Greg Brockman (Chairman & CTO), Ilya Sutskever (Chief Scientist), and Sam Altman (CEO), and non-employees Adam D'Angelo, Holden Karnofsky, Reid Hoffman, Sue Yoon, and Tasha McCauley.

**Links:** <https://openai.com/>

### **MONTREAL INSTITUTE FOR LEARNING ALGORITHMS (MILA) 3**

#### **Description/Area of Focus**

Located in the heart of Quebec's Canada Artificial Intelligence ecosystem, Mila is a community of 450 researchers specializing in machine learning and dedicated to scientific excellence and innovation. Our mission is to be a global pole for scientific advances that inspires innovation and the development of AI for the benefit of all.

#### **About**

Mila, a non-profit organization, is recognized globally for its significant contributions to the field of deep learning, Mila has distinguished itself in the areas of language modelling, machine translation, object recognition and generative models.

**Link:** <https://mila.quebec/en/>

#### **Papers With Code (4)**

##### **Description/Area of Focus**

The mission of Papers With Code is to create a free and open resource with Machine Learning papers, code and evaluation tables. We believe this is best done together with the community and powered by automation. We've already automated the linking of code to papers, and we are now working on automating the extraction of evaluation metrics from papers.

##### **About**

Most of the data comes from our own annotation of papers. To ensure we have a broad coverage of Machine Learning tasks we've parsed the titles of more than 60,000 papers (as many papers as named as "Method X for Task Y"). In addition, we've also manually annotated tasks and datasets in 1,600 ArXiv abstract from the last three months of 2018. We've read hundreds of papers to populate the most popular ML tasks with evaluation metrics. We are also grateful to the following projects which provided their data under a free licence, and therefore enabled us to include their data as well: NLP progress EFF AI metrics SQuAD RedditSota

**Link:** <https://paperswithcode.com/>

#### **Data Science Foundation (5)**

##### **Description/Area of Focus**

We help organisations new to evidence-based decision making; collect, process and analyse data. We help them appreciate the meaning hidden in their data so that they can understand more about the landscape in which they operate. We then encourage organisations who already have the expertise to collect data and create insight, to consider the moral implications of their actions. To think about social and environmental consequences of the pursuit of short-term goals. Our core believe is that decisions that encompass a wider perspective ultimately produce the best long-term results.

##### **About**

Data science is the structured approach to the extraction of intelligence from data. Data science combines techniques from disciplines such as statistics, computer science, operations research and many others to derive insight from data. Increases in computing power and the development of techniques to combine and analyse large and complex datasets have vastly improved the quality of insight that can be drawn from data. In a business context, this has enabled companies to develop a richer understanding of their customers' behaviour, improve their production operations and build more accurate models of demand and capacity. Data science continues to improve organisations' ability to plan for the future by providing a more solid foundation upon which to base their decisions.

**Link:** <https://datascience.foundation/dsf>

### **Deep Learning AI (6)**

#### **Description/Area of Focus**

Deep Learning is a superpower. With it you can make a computer see, synthesize novel art, translate languages, render a medical diagnosis, or build pieces of a car that can drive itself. If that isn't a superpower, I don't know what is. — Andrew Ng, Founder of [deplearning.ai](https://deplearning.ai) and Coursera Deep Learning Specialization, Course 5

#### **About**

We're making a world-class AI education accessible to people around the globe so that we can all benefit from an AI-powered future.

**Link:** <https://www.deeplearning.ai/>

### **CREATIVE DESTRUCTION LAB (CDL) (7)**

#### **Description/Area of Focus**

Creative Destruction Lab (CDL) is a nonprofit organization that delivers an objectives-based program for massively scalable, seed-stage, science- and technology-based companies.

#### **About**

Increase probability of success

**Link:** <https://www.creativedestructionlab.com/>

### **Next AI (8)**

#### **Description/Area of Focus**

With the rise of artificial intelligence, Canadian businesses need to not only prepare, but equip themselves with skills to be competitive in this new data-driven economy.

#### **About**

Next AI is a world class program for artificial intelligence based ventures and technology commercialization. We identify talented idea or early-stage teams with ambitious solutions and leverage Canada's leadership position in AI to provide them with the capital, mentorship, education and network to disrupt industries. Next AI is delivered on two campuses: Toronto and Montréal. Next AI – Montréal is delivered in partnership with HEC Montréal.

**Link:** <https://www.nextcanada.com/next-ai/>

### **STARTUP EDMONTON (Accelerator) 8**

#### **Description/Area of Focus**

Supporting entrepreneurs as they build and grow tech-enabled products is at the heart of everything we do. We're here to help you each step of the way with mentorship & programs, coworking space, community events, and lots of support to grow your team. Since 2009, we have brought together entrepreneurs, developers, students, founders, mentors, & investors to transform ideas into some of Canada's most exciting and successful startup & scaling companies.

#### **About**

CONNECT WITH COMMUNITY, SKILLS & SPACE TAKE YOUR STARTUP IDEA TO REALITY

**Link:** <https://www.startupedmonton.com/>

### **TandemLaunch (Accelerator) 9**

#### **Description/Area of Focus**

TandemLaunch works with brilliant entrepreneurs to build companies around university technologies. Our network of industry and university partners is global, extensive and very valuable to our process. TandemLaunch takes a unique approach to building start-ups. We start by identifying industry problems, then scout technologies to solve them. We then assemble a team and build a company together. Unlike other incubators, we take pride in not only offering a large amount of funding but we also take the time to provide mentorship, coaching and the opportunity for co-creation.

#### **About**

TandemLaunch is a unique startup foundry and seed fund based in Montreal. We work with driven entrepreneurs to turn research from the world's best universities into exceptional technology companies.

**Link:** <https://www.tandemlaunch.com/en/>

### **ALBERTA MACHINE INTELLIGENCE INSTITUTE (AMII) 10**

#### **Description/Area of Focus**

The Alberta Machine Intelligence Institute inspires world-changing machine intelligence for good and for all

#### **About**

The Alberta Machine Intelligence Institute (Amii), is a research lab at the University of Alberta previously known as the Alberta Innovates Centre for Machine Learning (AICML). They work to enhance understanding and innovation in a number of subfields of machine intelligence. Amii's teams conduct leading-edge research to push the bounds of academic knowledge, and forge business collaborations both locally and internationally to create innovative, adaptive solutions to the toughest problems facing Alberta and the world.

**Link:** <https://www.amii.ca/>

## **BOREALIS AI (11)**

### **Description/Area of Focus**

Cutting Edge Machine Learning. Vast Computational Power. Massive Data. We research and we build.

### **About**

Borealis AI supports RBC's innovation strategy through fundamental scientific study and exploration in machine learning theory and applications. The team aims to develop state-of-the-art technology and supports academic collaborations with world-class research centres in artificial intelligence.

**Link:** <https://www.borealisai.com/en/>

## **CANADIAN INSTITUTE FOR ADVANCED RESEARCH (CIFAR) 12**

### **Description/Area of Focus**

CIFAR plays a significant role in artificial intelligence research in Canada and around the world. We helped to enable some of the fundamental breakthroughs in the field through our Learning in Machines & Brains program, a program which continues to deliver ground breaking research. We lead a \$125 million national strategy to establish Canada's international leadership in AI. And we run a program that explores the ways that AI will reshape our society and how we should respond.

### **About**

Canadian Institute for Advanced Research (CIFAR) has been successfully taking on difficult challenges for more than three decades. Their global research programs connect many of the world's best minds – across borders and between disciplines – to shape new perspectives and spark groundbreaking ideas. By helping innovative pioneers push further, and inspiring young research leaders to join them, CIFAR is able to expand the boundaries of understanding in ways that would otherwise not be possible.

**Link:** <https://www.cifar.ca/ai>

## **COMPUTER RESEARCH INSTITUTE OF MONTRÉAL (CRIM) 13**

### **Description/Area of Focus**

The Emerging Technologies and Data Science team develops and maintains a cutting-edge expertise, particularly in the areas of the Web, mobile technology, semantics, advanced analytics, Big Data and the development of collaborative platforms. The team's mandates are mainly geared towards the development of customized technologies, in collaborative mode. Our expertise

### **About**

CRIM is an applied research and expertise centre in information technology, dedicated to making organizations more effective and competitive through the development of innovative technology and the transfer of leading edge know-how, while contributing to scientific advancement. **Link:** <https://www.crim.ca/en/>

## INSTITUTE FOR DATA VALORIZATION (IVADO) 14

### Description/Area of Focus

Participate in the development of a new economy evolving around massive data processing to support decision-making, develop privileged partnerships between the industry and the administrative, social and academic institutes in Montréal and across Québec, contribute to the advancement of data science knowledge and train the next generations of data scientists.

### About

IVADO aims to bring together industry professionals and academic researchers to develop cutting-edge expertise in data science, operational research and artificial intelligence. IVADO members provide data management methods and inform decision making for optimal resource use. In essence, IVADO creates opportunities for knowledge exchange and collaborations between the specialists, partners, researchers and students in its network. IVADO's objective is to be the link between academic expertise and the business needs of organizations, from international corporations to start-ups. With over 1000 affiliated scientists (researchers, post-docs, PhD candidates and research associates), IVADO is an advanced multidisciplinary centre for knowledge in sectors including statistics, business intelligence, deep learning, applied mathematics, data mining and cybersecurity. The institute therefore supports the development of processes to extract trends, metrics and concrete information from the jumble of big data.

Link: <https://ivado.ca/en/>

## SMART COMPUTING FOR INNOVATION (15)

### Description/Area of Focus

SOSCIP is an R&D advanced computing consortium based in Ontario. SOSCIP's mission is to bring together industrial partners and academic researchers and provide them with sophisticated advanced computing technologies and expertise to solve social, technical and business challenges across sectors and drive economic growth. Developed as a collaboration between 15 Ontario post-secondary institutions, IBM Canada Ltd. and many small- and medium-sized enterprises (SMEs) across the province, SOSCIP has catalyzed the creation of a collaborative ecosystem that has accelerated the economic impact, job creation, skills retention and growth of over 120 Canadian firms.

### About

Driving R&D Advanced Computing The unique technologies, partnership-building capabilities and extensive research support framework provided by SOSCIP allows companies to accelerate development of new products and services and increase their impact on the Canadian and global economy. By tapping into world-leading research expertise at Canada's colleges and universities, SOSCIP makes it easy for companies to access the latest in advanced computational, AI and data science technologies, as well as the talent needed to sustain long-term growth. Specifically, SOSCIP provides industry partners and academic research teams access to leading-edge technology and technical expertise, while providing ongoing project support to ensure that our partners

overcome any obstacles over the course of a project. This recipe has fostered a reputation for excellence and a proven track record of success in innovation, while helping our partners commercialize new products and services, improve business processes, increase sales, create new jobs and grow their companies. Building a strong future for Canadians, the SOSCIP collaborative ecosystem is a key fabric to the economic development in Ontario through developing made-in-Canada advanced technical skills and delivering innovative outcomes that will contribute to a skilled and innovative economy.

**Link:** <https://www.soscip.org/>

## VECTOR INSTITUTE (16)

### Description/Area of Focus

The Vector Institute is an independent, non-profit research institution dedicated to the transformative field of artificial intelligence, excelling in deep learning and machine learning – an area of scientific, academic, and commercial endeavour that will shape our world over the next generation.

### About

The Vector Institute will drive excellence and leadership in Canada's knowledge, creation, and use of artificial intelligence (AI) to foster economic growth and improve the lives of Canadians. Vector strives to attract the best global talent focused on research excellence in deep learning and machine learning. Our researchers and academic partners are part of a vibrant community of innovative problem-solvers, working across disciplines on both curiosity-driven and applied research.

**Link:** <https://vectorinstitute.ai/>

### Element AI

#### Description/Area of Focus

At Element AI, responsibility is intrinsic to who we are and what we do. We work hard to ensure that AI is designed, developed and deployed in service of the public good— not because it is one possible path to safe AI among many, but because it is the only way forward. We engage with governments, civil society, academia and businesses to ensure deployment respects laws and regulations and is grounded in human rights. We research the design and technical aspects of explainability and transparency; choose AI projects that lead to positive social impacts; and are dedicated to putting our own house in order first through responsible and sustainable business practices. We help organizations adopt the safe and responsible AI that we believe will be imperative to long-term growth.

#### About

**Into the Unknown** Our fundamental research teams work on problems with unknown solutions, where research is ongoing or where we want to push the state-of-the-art. Our researchers pursue novel research in the lab and use the best ideas to power solutions that deliver real impact. We bring the best of academia and industry together to push the state of the art forward. **Benevolent:** Researching the impact of AI and working towards models that are unbiased, fair, accurate and secure

**Link:** <https://www.elementai.com/>

**NOTE:** Updating this documents will continue with knowledge management partners in emerging technologies.

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