

# ARTIFICIAL INTELLIGENCE IN CANADA

Why is Canada a world leader in artificial intelligence (AI)? Consider these facts:

The foundations of AI research in Canada are strong. AI pioneers including Geoffrey Hinton at the University of Toronto, Yoshua Bengio at Université de Montréal, and Richard S. Sutton at the University of Alberta have played a pivotal role in developing the technology and have become magnets for attracting more top talent for research and for business all across Canada.

For example, Montreal has the world's highest concentration of researchers and students of deep learning. Toronto has the world's highest concentration of AI startups.

Canada has become a powerhouse of AI innovation, producing the most AI patents per capita among G7 nations between 2015 and 2018. More than China too.

## AI KEEPS GROWING IN CANADA

Supported by an unparalleled visa program for skilled workers (the Global Skills Strategy brings talent into Canada within two weeks) and a talented workforce (the most educated country in the OECD), AI in Canada continues to grow—with nearly \$3 billion in investment and over 50,000 jobs created over the past decade.

## THE WORLD IS INVESTING IN CANADIAN AI

In 2019, a record-breaking 57 deals saw US\$658 million in venture capital invested in Canadian AI companies, an increase of almost 50% from 2018. (Source: Betakit)

As well, from January 2018 to March 2020, 25 FDI projects reflecting US\$2.09 billion in planned CAPEX in Canada's AI industry were announced. Plus, from January 2018 to May 2020, 19 M&A deals generated US\$450 million in M&A deal flow for Canada's AI industry. (Source: fDi Market, Pitchbook)

The Scientific Research and Experimental Development (SR&ED) tax incentive program draws many AI investors. So too does Canada's low talent costs. For example, Toronto, Montreal, and Vancouver reflect on average half the talent costs of San Francisco.

# 1st

Canada is the first country in the world to develop a national AI strategy.

Source: CIFAR, Pan-Canadian Artificial Intelligence Strategy

# #1

Montreal has the highest concentration of **researchers and students** of deep learning in the world.

Source: Mila, 2019

# #1

Toronto has the highest concentration of **AI startups** in the world.

Source: Toronto Global

# #3

The University of Alberta (Edmonton) has been ranked in the top three in the world for **AI research** for the past 25 years.

Source: University of Alberta, 2020

# #4

Canada is ranked fourth in the world on the **Global AI Index**, which measures innovation, investment, and implementation.

Source: Tortoise Media, 2019



“Leveraging the combined expertise of Mila, IVADO and the rich ecosystem of AI universities and laboratories make Montreal and Canada the perfect place to develop cortAIx.”

— **Patrice Caine**, Chairman and CEO, Thales

## CANADA'S AI NETWORK



## CANADA'S SUPERCLUSTERS FOCUS ON AI

Five superclusters across Canada bring new incentives to build large-scale industry partnerships that accelerate innovation. The three featured here have an AI focus.

The AI-Powered Supply Chains Supercluster (Scale AI) alone is expected to create more than 16,000 jobs and add more than \$16.5 billion to Canada's economy over 10 years.

## NOTABLE RECENT AI INVESTMENTS

**Zesty.ai (USA)** announced an \$81.1 million investment in February 2020 for an AI centre in Montreal focused on the insurance industry, expected to create 127 jobs.

**Mastercard Technologies (USA)** announced a \$510 million cybersecurity R&D centre in Vancouver in January 2020, creating 270 jobs by 2029 and hiring 100 co-op students.

**HSBC (UK)** opened its Global Data & Innovation Lab in Toronto in May 2019, creating over 50 AI-related jobs.

**Samsung Electronics (South Korea)** announced the expansion of the Samsung Advanced Institute of Technology (SAIT) artificial intelligence (AI) Lab Montreal in May 2019.

**Fujitsu (Japan)** founded a new subsidiary in Vancouver in November 2018. Fujitsu Intelligence Technology focuses on developing AI products and services.

**Facebook (USA)** expanded its Montreal lab in September 2018, doubling AI researchers in its 60-person facility.

## MAJOR AI FOCAL POINTS IN CANADA

Canada's big three AI research institutes—Edmonton's Amii, Montreal's Mila, and Toronto's Vector Institute—train 500 interns, graduate students and postdocs.

**Amii** (the Alberta Machine Intelligence Institute) at the University of Alberta in Edmonton aims to enhance understanding and innovation in machine intelligence. Amii was founded as a research cluster (the Alberta Ingenuity Centre for Machine Learning) in 2002.

**Mila** (the Montreal Institute for Learning Algorithms) is a partnership between the Université de Montréal and McGill University and was founded in 2017 by Professor Yoshua Bengio.

**The Vector Institute** is the centre of Toronto's AI ecosystem and brings together universities, governments and industry.

## CONTACT

Invest in Canada promotes, facilitates and accelerates foreign direct investment (FDI) into Canada. It is the global investor's primary point of contact. Reach out to speak with a dedicated advisor.

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