



AIH INNOVATION HIGHLIGHT



COMPANY OVERVIEW

AIH Technology is an Ontario-based computer vision company that began its journey in facial recognition in 2016. With expertise in artificial intelligence (AI), they hope to solve the most significant challenges surrounding AI-enabled facial-recognition applications. Believing AI should be used ethically and responsibly for the betterment of the communities, AIH Tech plans to provide Facial Recognition as a Service (FRaaS) to help organizations to save time, save money, and in some cases - save lives.

LOCATION: MARKHAM, ON

TECHNOLOGY



Data Centre and Cloud

MAJOR ISSUES IN FACIAL RECOGNITION TODAY

AI-enabled facial recognition applications are on the rise. Still, with inconsistent and unreliable data, the offering has yet to reach its full potential. In today's market, certain facial recognition applications are found to be:

1. Racially biased, as certain facial recognition algorithms continue to show systematically more false identifications on certain races.
2. Inaccurate at identifying long term missing people, which, if fixed, can significantly improve identification rates in cases.
3. Using unauthorized public data, which causes distrust and security concerns.
4. Complicated, expensive to implement and scale, which limit the availability of applications.

MAKING AI FACIAL RECOGNITION TECH RELIABLE

AIH is committed to offering reliable AI-enabled FRaaS. AIH developed its core technology using innovative machine learning and algorithm engineering methods to significantly enhance the way FRaaS is offered. By converting to a multi-tenant structure, AIH moved their solution from an on-premise single server offering to a multi-tenanted cloud offering. This eliminates the client's need for decoders and middleware, plus AIH can now update client software directly from the cloud, bringing costs down to 3x below the market standard. As well, by using encrypted hash code for each data point, the solution empowers user privacy and operator data autonomy.

TURNING GOALS INTO ACTIONS

With access to the CENGN Testbed, AIH was able to validate the scalability of its new cloud architecture.

POSITIVE TESTBED RESULTS

Tests were executed using data sets to confirm an absolute zero false-positive rate on ethnic group identification while maintaining an industry-leading accuracy. On average, this proved to be 6-16% more accurate than the competitors. AIH found that with load balancing, they can monitor 30 video streams concurrently using four v100 GPUs and need only one v100 GPU for eight streams.

With these results, AIH is equipped to offer its leading solutions to customers.

“Our project on the CENGN Advanced Testing Platform will enable AIH Technology to demonstrate to potential customers its engineering prowess in creating scalable and ethical AI for facial recognition.”

**Ben Su, Co-founder,
AIH Technology**



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