

# AI in IoT

## The First Edge Computing AI Chip in Hong Kong for Real Time Video Analytics Application (Joint Applied-Research Commercial Product Development and Joint-Research Paper Publication)



By Prof G.S.Yin, Dr Adela Lau, Dr Herbert Lee (MDAI Ltd.) and Dr Patrick Ma (MDAI Ltd.)  
(<https://dslab.saas.hku.hk/cgi-bin/application1.cgi/>)



Figure 1 Project Meeting with Marvel Digital AI Limited at Hong Kong Science Park. From left to right: Dr Patrick Ma, Prof G.S. Yin, Dr Herbert Lee, and Dr Adela Lau



Figure 1 Real-time AI at the Edge



Figure 2: Applications for Marvel Edge Computing AI chip

*“It is the first edge computing AI chip developed by Marvel Digital AI Limited in Hong Kong. Thank you to Data Science Lab for deploying our newly invented AI chip with their real time video analytics apps. The novel apps can overcome the security and privacy concerns for video analytics and surveillance.” said Dr Herbert Lee, Chairman of Marvel Digital AI Ltd, and Dr Patrick Ma, CEO of Marvel Digital AI Ltd.*

Marvel Digital AI Limited is a high-tech company that focuses on developing innovative AI and Big Data Analytics solutions. It donated the first edge computing AI chip with a small desktop machine to HKU SAAS Data Science Lab in 2021. The DSL lab has implemented several apps for real time risks or movement detection. The apps can detect human emotion, body movement, fire, door open, and some other objects detection. Since the analysis does not require to run in a cloud computing architecture, it overcomes the security and privacy concern of video transmission. All your video did not need to go through a public network and the apps allow you to analyse video/image data in real time inside the chip itself.

DS Lab is welcome all business to collaborate and brainstorm with us for video analytics product development. The apps can be deployed in a privacy environment that overcomes the security and privacy concerns. The AI chip can be put in any devices such as a robot pet, a surveillance camera, etc, and the application setting can be in home/child centre/elderly centre/office/hotel detection and monitoring, etc.

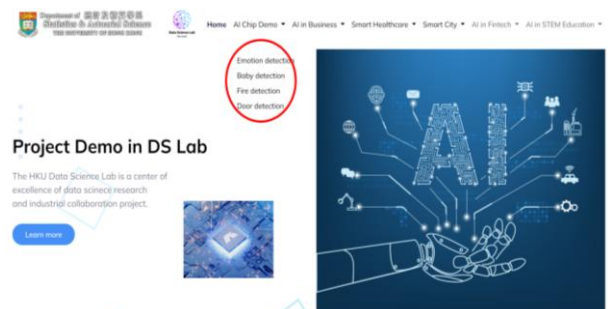


Figure 2: AI Chip Demo by Data Science Lab

*“You are welcome to contact our data science lab or Dr Adela Lau to get access to the AI chip demo, and to explore the collaboration opportunity for commercial product development. Please contact Dr Adela Lau at [adelalau@hku.hk](mailto:adelalau@hku.hk),” said Dr Adela Lau, Deputy Director of HKU SAAS Data Science Lab.*