**AI Based Security Check**

**Face detection and mask classification for LWIR temperature camera**

**Introduction**

After the outbreak of coronavirus COVID-19, the pandemic has created unprecedented changes in daily life. There are new scenarios and needs coming from verticals to suppress disease transmission. Therefore, we build convolutional neural network (CNN) models and create a 3 in 1 intelligent edge solution that integrates Windows Hello, face mask detection, and body temperature measurement together with AI edge device and infrared (IR) / long wavelength infrared (LWIR) camera to create a security working environment both virtually and physically.

**Video**

a). Face detection and mask classification [Demo Video](https://1drv.ms/u/s!AjHUpUIAWcrZiHSzsePlyfx85SN2?e=EkRgdH)

**Demo Deck & Slides**

a). Slides[​mp4 icon In-Car Cognition with Edge Artificial Intelligence Accelerators.mp4](https://1drv.ms/u/s!AjHUpUIAWcrZiHbL-sVDxTNsWrl6?e=sX4zkL)

b). Paper: [In-Car Cognition with Edge Artificial Intelligence Accelerators](https://nam06.safelinks.protection.outlook.com/?url=https%3A%2F%2Faiotworkshop.github.io%2F2020%2Fpublished%2FIn-Car%2520Cognition%2520with%2520Edge%2520Artificial%2520Intelligence%2520Accelerators.pdf&data=04%7C01%7Ca-vivihsu%40microsoft.com%7C3ec60369ae364adec75608d8b3905c65%7C72f988bf86f141af91ab2d7cd011db47%7C1%7C0%7C637456779892582481%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C1000&sdata=yLDumpHbODkT7GFj8Gu2OphRHGrymRM2%2BEw5%2FwqnvyQ%3D&reserved=0)

C). Slides [​mp4 iconIntelligent Solutions in the COVID-19 Era with AI Camera.mp4](https://1drv.ms/u/s!AjHUpUIAWcrZiHlLzX64zYma8ZTa?e=NgZj3g)

d). Paper: [Intelligent Solutions in the COVID-19 Era with AI Camera](https://aiotworkshop.github.io/published/2020_08_24%20KDD%20Intelligent%20Solutions%20in%20the%20COVID-19%20Era%20with%20AI%20Camera.pdf)