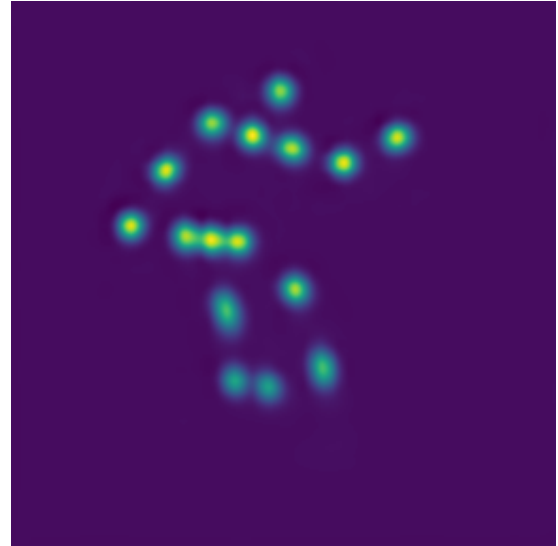


Privacy compliant Human Pose Estimation

In a previous project Human Pose Estimation (Figure 1) has been successfully implemented on an edge FPGA ([Blog post](#)). AMD-Xilinx Vitis AI was used to compute the deep neural network. Accordingly, the basic work has already been done and an advanced, complete system could be developed.



(a) The human pose overlaid over the input image



(b) The confidence map the direct output of the neural network

Figure 1

- Porting from the Python-API to the C++-API
- Adding multiperson HPE with Part Affinity Fields as presented in [\[1\]](#)
 - Implementation in C++ and HLS
- Removing the person in the image and only display the human pose
 - Simple approaches like, paint an human avatar over the person
 - Classical computer vision Image Inpainting approaches like [\[2\]](#)
 - * HLS
 - With modern deep learning [\[3\]](#)
 - * Vitis AI

Bibliography

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