

# *Abstract*

With the rise of automation and artificial intelligence, computer vision has become a highly targeted field. With this popularity, there is now a need for faster, more efficient computer vision algorithms. In this thesis, we present a way to accelerate high-throughput computer vision algorithms using GPUs. We ported established computer vision algorithms onto the GPU and then explored further optimizations to enhance performance. We benchmarked our system against the baseline CPU implementation in order to evaluate its speed gains.