

Jakob Kirkegaard

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Objective

To continuously work with state-of-the-art computer vision and machine learning in the intersection between research and software engineering.

Education

1999 – 2005 M. Sc. E., Software Engineering, Computer Vision and Graphics, Aalborg University

- Master's thesis about vision based robotic bin-picking in collaboration with the Danish company Grundfos A/S.

Work experience

2011 – present Founder and Computer Vision Expert, Percepto, Aalborg

- Advising customers in industries ranging from entertainment to defense about computer vision feasibility.
- Prototyping applications for tracking, object recognition and 3D reconstruction for desktop, iOS and Android.
- Developing cross-platform applications using C++, C, Python, Qt, OpenCV, Point Cloud Library.

2010 – 2013 Senior Software Developer, BAE Systems Applied Intelligence, Aalborg

- Developing analysis software for data crime investigation and diagnostics in large telecommunication systems.
- Implementing cross-platform server applications in C++ demanding high performance and extreme fault tolerance.
- Responsible lead developer for components decoding audio/video and go-to guy on the darker corners of C++.

2007 – 2010 Partner and System Developer, IH Automation A/S, Aalborg

- Head of computer vision development for industrial robotic automation systems.
- Lead developer of frameworks and applications based on C# and C++.

2005 – 2007 System Developer, Image House A/S, Copenhagen

- Developer of vision-based quality control and automation systems for medical, postal and food production.
- Designer of camera and light setups for various automation tasks.

Software experience

Programming languages

- C++98 (10y), C++11 (3y), C (12y), PHP (12y), C# (10y), Python (5y)

Development environments

- Qt Creator (5y), MS Visual Studio (10y), KDevelop (2y), XCode (1y), Emacs (10y)

Frameworks, libraries and applications

- Intel IPP/MKL (10y), OpenCV (8y), PCL (3y), NI LabVIEW (2y), MatLab (11y), Octave (5y), Maple (3y)

Publications

- J. Kirkegaard, T. B. Moeslund, 2006, Bin-Picking based on Harmonic Shape Contexts and Graph-Based Matching.
- T. B. Moeslund, J. Kirkegaard, 2006, Pose Estimation Using Structured Light and Harmonic Shape Contexts.
- T. B. Moeslund, J. Kirkegaard, 2005, Pose Estimation of Randomly Organized Stator Housings.