SØREN KELSTRUP SKOVSEN

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EDUCATION

Graduate Institutions	Field	Specialization	Degree	Period
Cornell Tech	ECE	Wearable computer vision	Visiting PhD Student	2020 - 2020
Aarhus University	ECE	Image based machine learning	PhD	2017 - 2021
UC San Diego	ECE	Machine learning	2x Trimester Exchange	2015 - 2016
Aarhus University	ECE	Signal processing	Master of Engineering	2015 - 2017

WORK EXPERIENCE

AI Lab   2018 -
Founder, Developer predominantly on agricultural vision systems including hardware design and assembly, quality assurance, data analysis, and model interpretation.

AI Lab freelancer, Trifork   2025 - 2026
Tech-lead, Developer on vision AI projects.

RESEARCH EXPERIENCE

AI Lab, DK   2025 -
Commercial partner
Project: *Enhancing working conditions and strengthening the work force through digital and data technologies – the potential of robotics and augmented reality in agriculture.*
Funded by Horizon Europe.

Dept. of Electrical and Computer Engineering, Aarhus University, DK   2023 - 2025
Postdoctoral Researcher
Project: *Micro volume weed sprayer using real-time computer vision and organic herbicides.*
Funded by United States Department of Agriculture.

Dept. of Electrical and Computer Engineering, Aarhus University, DK   2021 - 2024
Postdoctoral Researcher
Project: *Species composition prediction and weed recognition in mixed crops.*
Funded by United States Department of Agriculture.

Dept. of Engineering, Aarhus University, DK   2017 - 2021
Graduate Researcher
Project: *Biomass composition prediction of mixed crops using image based machine learning.*
Funded by Innovation Fund Denmark and Green Development and Demonstration Programme.
Supervisor: Henrik Karstoft, Professor.
Co-supervisor: Rasmus Nyholm Jørgensen, Senior Researcher.

SELECTION OF REFEREED PUBLICATIONS

Dyrmann M; **Skovsen, SK**; Christiansen PH; Kragh MF; Mortensen AK. 2024. *High-speed camera system for efficient monitoring of invasive plant species along roadways.* F1000Res. 2024 Oct 4. Published October 4th 2024.

Skovsen, SK; Laursen, MS; Kristensen, RK; Rasmussen, J. et al. 2021. *Robust Species Distribution Mapping of Crop Mixtures Using Color Images and Convolutional Neural Networks .* Sensors 2021, 21, 175. Published December 29th 2020.

Skovsen, SK; Laursen, MS; Gislum, R; Eriksen, J. et al. 2019. *Species Distribution Mapping of Grass Clover Leys using Images for Targeted Nitrogen Fertilization.* Precision agriculture '19, 639 - 645. Published July 8th 2019.

Skovsen, SK; Dyrmann, M; Mortensen, AK; Laursen, MS. et al. *The GrassClover Image Dataset for Semantic and Hierarchical Species Understanding in Agriculture.* The IEEE Conference on Computer Vision and Pattern Recognition (CVPR) Workshops, 2019. Published June 2019.

Christiansen, MP; Laursen, MS; Jørgensen, RN; **Skovsen, SK** et al. 2017. *Designing and Testing a UAV Mapping System for Agricultural Field Surveying.* Sensors 17, no. 12: 2703. Published November 23rd 2017.

Skovsen, SK; Dyrmann, M; Mortensen, AK; Steen, KA. et al. 2017. *Estimation of the Botanical Composition of Clover-Grass Leys from RGB Images Using Data Simulation and Fully Convolutional Neural Networks.* Sensors 17, no. 12: 2930. Published December 17th 2017.