# Saidnassimov Darkhan

# Software Design Engineer

Self-driven software engineer with 4 years of professional experience developing and delivering software-based solutions. Interested in automation and digitization of day-to-day applications using state-of-the-art machine learning methodologies.

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## **Work Experience**

## Software Design Engineer, ABB, Helsinki, Finland

Nov 2022 - present

- Designing the architecture of the Energy Management solution back-end.
- Developed anomaly detection and forecasting application plugins for the Energy Management software and maintained its core functionality.
- Skills: C#.NET, RTDB (time-series database), REST API, Azure DevOps, batch scripting.

#### Thesis Worker, Metso:Outotec, Espoo, Finland

Jan 2022 - Aug 2022

- Developed an algorithm to recognize real-life equipment items using rendered images of the corresponding 3D models, achieving mAP of 69.57% using a custom industrial dataset.
- Research areas: deep learning, cross-domain object detection, transfer learning, continual learning.

#### Software Developer, Redrakon, Espoo, Finland

Oct 2021 - Jan 2022(out of business)

- Maintained a computer vision application in a startup environment.
- Skills: Python, RaspberryPi, OpenVINO, Intel NCS2, OpenCV

## Jr. Software Engineer, Raute Oyj, Lahti, Finland

July 2018 - July 2021

- Standardized the industrial data collection system through a thesis project.
- Completed on and off-site installations of data collection PLC systems in 10+ plywood mills
- Developed and maintained a C# user interface for a sheet feeder, later used in 2+ customer mills.
- Skills: TIA, Step7, PLC, C#.NET, Nginx

# **Education**

#### Aalto University, Espoo, Finland

Sep 2020 - July 2022

- M.Sc. in Automation and Electrical Engineering, Major in Control, Robotics and Autonomous Systems
- Thesis topic: Equipment identification through image recognition for Metso:Outotec (2022)

## HAMK University of Applied Sciences, Valkeakoski, Finland

Sep 2015 - Feb 2019

- B.Eng. in Electrical and Automation Engineering
- Exchange studies at the University of Dundee, Scotland, UK (2018)
- Thesis topic: Standardization of MillSIGHTS data collection and reporting system for Raute Oyj (2019)

#### Skills: Expert, Intermediate, Novice

- **Programming:** C# (.NET), Python, Matlab
- Databases: RTDB, MS SQL, MySQL
- DevOps & CI/CD: Batch Scripting, GitHub Actions, Docker, Kubernetes, Terraform
- Cloud Platforms: Azure DevOps
- PLC & IoT: Step7, TIA, Raspberry Pi, Arduino, ROS
- Machine Learning (Python): PyTorch, OpenCV, Pandas, NumPy, scikit-learn, YOLO, Matplotlib
- Other Skills: Linux, Git, LaTeX, JSON, XML, HTML/CSS, REST API, Microsoft Office
- Languages: Kazakh (Native), Russian (Native), English (Fluent, IELTS 7.0), Finnish (B1, YKI-certified)
- Other Certifications: Valid Finnish Occupational Safety Card, Driving License (B)