FACULTY
OF INFORMATION
TECHNOLOGY
CTU IN PRAGUE

Assignment of bachelor's thesis

Title:	Detection of defects in X-Ray images using Neural Networks
Student:	Matúš Botek
Supervisor:	Ing. Jakub Žitný
Study program:	Informatics
Branch / specialization:	Knowledge Engineering
Department:	Department of Applied Mathematics
Validity:	until the end of winter semester 2022/2023

Instructions

Research current state-of-the-art techniques that are used for detection and segmentation tasks in the medical imaging domain, and focus on X-Ray images. Implement one or more models that will work on datasets provided by the supervisor. Compare their performance and focus on preprocessing data in order to achieve the best accuracy with chosen models. Discuss the pros and cons of the various preprocessing approaches. Publish your prototype code and make sure your results are reproducible.

Electronically approved by Ing. Karel Klouda, Ph.D. on 10 February 2021 in Prague.