Comenius University Bratislava
Faculty of Mathematics, Physics and Informatics

THESIS ASSIGNMENT

Name and Surname:	Carlos Andres Pizarroso Troncoso
Study programme:	Applied Computer Science (Single degree study, master II. deg., full time form)
Field of Study:	Computer Science
Type of Thesis:	Diploma Thesis
Language of Thesis:	English
Secondary language:	Slovak

Title: Evaluating the Significance of Outdoor Advertising utilizing Computer Vision

Annotation: The goal is to create and test a method that, based on a photograph (or video), will evaluate the importance of a billboard. The work will use deep neural networks and the BillboardLamac database

Aim:
1. State of the art review of deep learning object detectors and trackers
2. Choose 3 methods for object detection on image/videos and test them on the Billboard Lamac dataset
3. Create a new method for classification of billboard significance
4. Validate the propose method

Literature:
Zou, Zhengxia, et al. "Object detection in 20 years: A survey." Proceedings of the IEEE (2023).
H. Marciano et al., “The effect of billboard design specifications on driving: a pilot study,” Accident Analysis & Prevention, vol. 104, pp. 174–184, 2017.
Z. Bylinskii, T. Judd, A. Oliva, A. Torralba, and F. Durand, “What do different evaluation metrics tell us about saliency models?” IEEE transactions on pattern analysis and machine intelligence, vol. 41, no. 3, pp. 740–757, 2018.

Supervisor:	RNDr. Zuzana Berger Haladová, PhD.
Department:	FMFI.KAI - Department of Applied Informatics
Head of department:	doc. RNDr. Tatiana Jajcayová, PhD.

Assigned: 06.10.2023

Approved: 14.11.2023 prof. RNDr. Roman Ďurikovič, PhD.
Guarantor of Study Programme

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Student

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Supervisor