Comenius University in Bratislava
Faculty of Mathematics, Physics and Informatics

THESIS ASSIGNMENT

Name and Surname:	Filip Jurčák
Study programme:	Computer Science (Single degree study, bachelor I. deg., full time form)
Field of Study:	Computer Science
Type of Thesis:	Bachelor´s thesis
Language of Thesis:	English
Secondary language:	Slovak

Title: Material picker: Material recognition in images using deep learning

Annotation: One of the important steps in modeling realistic 3D scenes is setting material appearance of the various scene objects. The goal of this project is to simplify this -- often tedious -- task by providing the 3D artist with an intelligent material picker tool. The tool will allow to ‘pick’ a material from any given input image by simply pointing to an object. A deep neural network will be trained to achieve this nontrivial goal. An extensive set of training data will be provided, where the complex correspondence between the image pixels and the underlying object material will be available. The network will be trained to recover this pixel-material correspondence from new, previously unseen images.

Supervisor:	Mgr. Petr Vévoda
Department:	FMFI.KI - Department of Computer Science
Head of department:	prof. RNDr. Martin Škoviera, PhD.
Assigned:	29.10.2019
Approved:	30.10.2019

doc. RNDr. Daniel Olejár, PhD.
Guarantor of Study Programme

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Student

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Supervisor