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Recommendation

Mr Dubuis Samuel did his Bachelor project in Communication Systems under my supervision (September 2018 - January 2019). The project consisted of implementing code to create a customizable 3D object from superposed base and revealer layers. The superposition yields moiré effects, for example beating face patterns. With the Blender software, he simulated the superposition of the base and the revealer. He then extended the setup to provide support for two layers of lenslets. He also modified the parameters to improve the quality. Finally, he established quality criteria and optimized the parameters to obtain visually aesthetic moiré faces.

Mr Dubuis Samuel did a very good job in solving efficiently the occuring implementation and simulation problems, starting from scratch and with a few constraints and making an intelligent use of the simulation software. He was able to use the MatLab software to analyze extremely big images and transform them into a Blender object, sufficiently lightweight to render and simulate. He developed his own algorithms and also used external libraries. He also discovered and used a different rendering engine which enabled a much better rendering of lighting effects. Mr Dubuis Samuel was very receptive and always found solutions to the problem he was confronted with. Mr Dubuis Samuel obtained an excellent grade (5.5 out of 6) for this project.

Mr Dubuis Samuel was one of the excellent students I had under my supervision. Given the R&D nature of the project and Mr Dubuis Samuel results, I can warmly recommend him for pursing his studies towards a master degree in the field of Computer and Communication Engineering as well for an internship in the same field.

R. D. Hersch

Roger D. Hersch, Professor