## Getting started with Vulkan

## Viktor Makki<sup>1</sup>

<sup>1</sup> Faculty of Electrical Engineering and Informatics, Budapest University of Technology and Economics, Budapest, Hungary

I began to work with the Vulkan API a year ago. I would like to share some tips and tricks I wish I knew before I got started. Many people I spoke with were afraid of Vulkan's use, because of its hard initialization. So, I decided to write a library with configurable default settings to help the quicker initialization.

I will introduce the Vulkan API and the prototype of this self-developed library, which simplifies Vulkan's initialization, but keeps its configurability. First, I will speak about Vulkan's architecture, how can we create an application and what do we need for drawing our first triangle. Next, I will present my library, how can we create classes that represent Vulkan objects with configurations different from the default. Then I will present the application side interface, how can we use the renderer library through this interface, which hides the implementation of the renderer layer. Finally, I will introduce the RenderDoc monitoring application to help debugging.