## BRIGHAM HEALTH





Ron Kikinis, M.D.

Vice-Chair for Biomedical Informatics Research; Founding Director, Surgical Planning Laboratory, Department of Radiology, Brigham and Women's Hospital

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May 29, 2020

## To Whom It May Concern:

It is my sincere pleasure to provide a recommendation for Benjamin Grauer (DOB: April 9, 1980). Benjamin is a motivated, skilled, and hardworking scholar who will surely provide unique, valuable expertise to any team.

I am the B. Leonard Holman Professor of Radiology at Harvard Medical School, as well as the Vice-Chair for Biomedical Informatics Research and founding Director of the Surgical Planning Laboratory (SPL), in the Department of Radiology, Brigham and Women's Hospital, Boston, MA. The core mission of the SPL is the extraction of medically relevant information from diagnostic imaging data and to introduce concepts of computation and image analysis to new fields of biomedical research. The lab collaborates with groups within Brigham and Women's Hospital, with other researchers at Harvard Medical School, with local universities such as Harvard and MIT, and with clinicians, researchers, and engineers throughout the world.

Benjamin joined the SPL to complete his Master's thesis, on a project titled, "GPGPU Accelerated Volume Renderer for Guiding Transthoracic Echocardiography Surgeries (Real-time volume rendering algorithm using CUDA)," from November 2007 – May 2008. In this project, Benjamin was able to integrate network streamed content into VTK and present it with a novel GPU based volume rendering algorithm based on ray-casting. He was a quick-thinking, a fast learner, and quickly achieved reached results. He worked together with a team of researchers to integrate their rendering technologies into new tools and aided other students in achieving their goals.

Benjamin's determination, passion for programming, collaborative nature, and scientific rigor rendered him a valuable member of our team. I have every confidence that these qualities will lead to his success in future endeavors.

If you have any questions, please do not hesitate to contact my office.

Sincerely,

Ron Kikinis, M.D.

