

# Reference Letter

Schlieren, June 3, 2020

To whom it may concern:

With great pleasure, I hereby give a letter of reference for Mr. Benjamin Grauer, for the time he has worked with me at VirtaMed AG. Benjamin Grauer has been employed at VirtaMed AG in Schlieren, Switzerland since August 1<sup>st</sup>, 2008.

VirtaMed develops state-of-the-art surgical training tools of the highest possible realism to improve the quality of patient care. The Swiss company offers virtual reality simulators for various endoscopic operations in orthopedics, gynecology, urology, and laparoscopy. Teaching institutions and medical device companies use VirtaMed's simulators globally for education and hands-on training.

Over the last 11 years at VirtaMed, Benjamin has taken over a multitude of tasks and roles, and he has been a key person in helping the company grow from just a few employees to over 100 to date. His duties and responsibilities have included the following:

- 2008-2011: Software Engineer
  - Performing all kinds of boot-strapping tasks required to get a successful business running. This included tasks such as the following
    - Porting our first simulation engine – at that time, an overly complex Linux application - to Windows
    - Implementing the simulator's User Interface in WPF and C#
    - Integration of hardware (like haptic devices) in the software, in C++
    - Various framework and architectural implementations in C++
    - A little bit of 3D modeling in Maya and Blender
    - 3D rendering to make the simulations look as good as possible
    - Gameplay implementations to make our simulators a great teaching tool
    - Deployment tasks, e.g. building SW installers
    - Finally, Benjamin had a key role in the design of the next, much more versatile, engine generation, that we started to build up starting around 2010
- 2011-2017: Engineering Manager
  - During these years, the company grew significantly. Specifically, for the SW Development Team this meant going from about 5 developers to almost 40. In this time, Benjamin contributed significantly to the following areas:
    - Introduction of Scrum into our development processes. This started with him and me obtaining the Certified Scrum Master certificate, and then acting as Scrum Master and/or PO in different projects.
    - One prominent example was our ArthroS simulator module for arthroscopic procedures on the knee, where Benjamin's work as PO also included regular meetings and interactions with doctors, for example by visiting the operating room to understand better the needs and requirements of our simulators.

- Installation, introduction, and maintenance of software tools to support the Scrum process, like JIRA and Confluence and Bitbucket.
- Building up an IT infrastructure to a) support continuous integration and test automation, including tools like Jenkins, and b) support the whole company's server, e-mail, network, etc.
- Benjamin and I successfully recruited gameplay and framework developers, DevOps engineers, and the first dedicated testers. He acted then for several years as Line Manager and team lead / PO of sometimes more than 10 these people at the same time, conducting regular employee talks and salary discussions, and unfortunately sometimes also the separation process.
- Besides all the above, he still found the time to do some hands-on development himself, either directly on our engines and products, or by developing software tools that improved our development efficiency significantly.
- **2017-2020: Head of Data Services**  
With an install-base of almost 1000 simulators world-wide, it became more and more important to harvest and use the vast amounts of data produced every day, ranging from improved remote upgrading, installations and support, to online tracking of user performance, and longer-term initiatives applying machine learning techniques on the collected data to provide better future surgical training. This was a very new area for VirtaMed, and Benjamin took the lead of this initiative together with one of our co-CEOs, doing very different types of work, such as:
  - Finding an external development partner, as this was not our core strength at the time.
  - Leading a team as PO of 6 FTEs, based in Poland.
  - Design of the cloud-based architecture of our VirtaMed Connect system, including the interfaces to our other software modules (UI, Engines).
  - Dealing with legal issues related to data protection, such as GDPR.
  - As the Connect project touches almost all parts of our company, Benjamin was interacting with people from UI, Engine, Gameplay development, Testers, DevOps, as well as Support and Sales and Marketing.

Benjamin is eager to and remarkably successful in acquiring new skills. He is highly productive and can get impressive amounts of work done in a short time. I have not met many others, who have the same ability to find simple solutions on presumably difficult problems, by not being afraid to think outside of the box, and by just doing and trying out, rather than talking. Moreover, he thinks and acts in a highly team-oriented way. His approach to finding quality solutions is both effective and inspiring, why the team quickly adopts his proposed solving strategies. He can be highly motivating and inspiring to other people, by leading by doing and setting good examples. Finally, he works very well under pressure and thrived in a fast-paced and dynamic environment such as VirtaMed.

Benjamin is a proactive, motivated, creative, and solution-oriented employee. He often offers suggestions for improvements and decisively voices his opinion if circumstances require him to do so. He is of supportive character, cooperative, and an open-minded team-player. His knowledge and interests in a vast number of areas, combined with his social nature and joy in interacting with others, give him the unique possibility to work at interface roles, together with people with different characters and skillsets. His behavior towards clients, superiors, and other employees has always been friendly and appropriate.

Benjamin's work performance always met and often exceeded our expectations. Finally, he is open to feedback and criticism, and he can self-reflect and develop himself, both professionally and personally.

I thank him for his really great work in our team over the years, and I wish him all the best on his future personal and professional journey.

Yours faithfully,

A handwritten signature in dark ink, appearing to read 'Denis Steinemann', with a long horizontal flourish extending to the right.

Denis Steinemann, Ph.D.

Senior Research Engineer VirtaMed (2019 – today)

Chief Technology Officer VirtaMed (2015-2019)

Chief Scientific Officer VirtaMed (2008-2015)