I am interested in applying to the Software Development Engineer position at DSPACE. I found the listing on Indeed.com, and then learned more about the job on your website. I have always been fascinated by technology, having worked as team captain on my school's robotics team ever since middle school. I have since learned much more about programming and software development, both through my education and work experiences. I am applying for this position because I believe I meet and exceed all requirements to make me an ideal candidate for this job.

My first technical internship was at Capstone Surgical Technologies, where I was able to have a significant impact on their flagship product: an autonomous robotic surgeon. As a part of the surgery process, the robot uses CT scans processed in C++ to orient itself to the patient. Using my university studies, I was able to reduce the processing time from 30 minutes per scan to 3 minutes, a 10x decrease in runtime. I know that all software developer positions rely on a basic set of data structure and algorithmic knowledge, and this result demonstrates my technical capabilities in this regard. It also shows my ability to quickly understand, improve, and debug legacy applications, which will allow me to smoothly integrate into DSPACE's technology stack.

I am also currently working on a web-based personal project, Shaped. I am the lead backend developer, working on a Firebase database with a Nest.js framework for the API targeting a mobile React Native frontend. This project had a long gestation period, with many months of design before starting the technical work. This required many conversations with non-technical team members explaining why certain ideas could or could not work, and also many meetups with junior peers on the technical side to assist them with challenges and ensure we were meeting our deadlines. In addition to displaying my ability to work within and lead a team, this project demonstrates my technical experience in Javascript frameworks, which specifically apply to this job.

I hope that I have demonstrated that my technical and non-technical skills make me an ideal candidate for this job and allow me to contribute to DSPACE's success. I look forward to discussing the Software Development Engineer position and my qualifications in more detail. I have also attached my resume to this email.