David Sinden, PhD
david.sinden@gmail.com
djps.github.io
djps | *david_sinden*

LUMA Vision GmbH
Balanstr. 69b,
81541 München
Germany

June 24 2025

Dear Dr. Hennersperger,

Re: "Senior Ultrasound Software Engineer"

I would like to have applied for the position of Senior Ultrasound Software Engineer, having seen the position advertised in LinkedIn.

I am an applied mathematician by training, but have worked at the interface between academic research and industry for over ten years, in the United Kingdom and Germany, primarily in therapy and imaging with medical ultrasound but also in other clinical areas, such as ultra-low field MRI. I have used the mathematical skills to write performant, well-documented, tested, deployable code in both python and C++, compliant with both ISO 13485 and IEC 62304.

Through my professional experience, I am aware of the challenges of developing research code into part of a clinical solution, in terms of deployability and integration with hardware as well as the difficulty of developing real-time, robust solutions in a clinical setting.

I have a experience of HPC systems (either as local clusters or in the cloud), CMake, C++, python and git. I have good knowledge of GPU programming through openCL rather than CUDA.

I have worked with a UK-based company to improve signal quality for esophageal Doppler devices to monitor cardiac activity. I have technical knowledge of thermal ablation, having worked on commercial projects for percutaneous microwave ablation, academic projects on radiofrequency ablation and therapeutic ultrasound.

I have deep knowledge of classical ultrasound beamforming and image reconstruction, and have a good theoretical knowledge of deep learning: I was a key figure in a team which was joint first place in the "Challenge on Ultrasound Beamforming with Deep Learning" competition in 2020. I gave a invited lecture on the use of AI in therapeutic ultrasound at the most prestigious therapeutic ultrasound conference, ISTU, in 2023 and lecture graduate students on the mathematical foundations necessary to understand deep learning models.

I have permanent residency in Germany, living in Bremen, and speak conversational German. I am applying as there are structural changes at my current role which may reduce opportunities for development. As an Englishman living in northern Germany, I am unique positioned to irritate both the Bavarians and the Irish. I am enthusiastic about this role as it creates tangible clinical impact in image-guided therapies. Please find enclosed my CV, and let me know if you require any additional information.

Yours faithfully,

David Sinden

Attached: curriculum vitae