

Job Description – Biomedical Engineer

The Candidate should be an experienced, detail-oriented individual to join our team and work in an Image-Guided Surgery Robotic environment. The Image-Guided Therapy Group of ARTORG Center for Biomedical Engineering Research of the University of Bern, together with the Department of Neurosurgery of the University Hospital, Inselspital Bern, is working on a collaborative project for pre-operative training of microsurgical procedures. Technology readiness level TRL 2 to TRL 4 is underway, and we are currently validating the prototype with the neurosurgeons in Inselspital Bern with a focus on TRL 5 to TRL 8. The candidate should have a basic knowledge of clinical trials, protocol development, and Analysis.

Roles and Responsibilities:

- Will be responsible for the development and delivery of physician training plans. This includes but is not limited to hands-on training such as simulated procedures as well as training materials development and preparation.
- Converting the raw data acquired from the Hospitals and Fields into quantifiable figures and values. Ability to handle a large amount of data during the training process of the Artificial Intelligence System under supervision
- Interaction with surgeons and other internal teams such as software and mechanical engineering for project management, product validation, and manufacturing support. Translation of clinical knowledge base into a digital knowledge base (Machine-understandable).
- Coordinate with the development team based on the observed clinical problem. Assisting the developers with the carried-out research. Creation of the architecture and support in the definition of requirements in accordance with regulatory standards.
- Conduct clinical trials and laboratory experiments as per the protocols. Troubleshooting hardware and software used in data collection. Presentation of the results, data, strategy, and forecasts monthly to the team.

Skillsets:

- Fundamentals of Biomedical Instrumentations, excellent communication and documentation skills, Database creation, and Statistical analysis
- Ability to understand requirements and translate them into suitable solution architecture.
- R-Programming, User/Market Research and Database Creation, ability to work in team and capability
- Basic knowledge in C++/C and/or other programming skills. Sound knowledge in the software-hardware testing process.
- Strong critical thinking skills. Strong knowledge of Human anatomy and physiology.
- Ability to deal with nonverbal symbolism (formulas, scientific equations, graphs, etc.)

Minimum Requirements to Apply:

- Master's desired or Bachelor's minimum with research experience
- Field of Study: Electrical Engineering, Biomedical, Clinical Engineering, or other related.

Send to fredrick.joseph@artorg.unibe.ch

1. Letter of Motivation (1-page, font size 10) [Format- About me, Past and Motivation, How I fit for the role?]
2. CV (Academic Track Record, Professional Experience)

Start Period: At the earliest possible