Lukas Valine

lukas@valine.io | Github: https://github.com/valine

I'm a software engineer with over 7 years of experience in developing Android and Linux applications. Expertise in Android and Linux development, CUDA, OpenGL, and PyTorch. I'm fluent in C++, Python and Java, and am eager to learn on the job.

Work Experience

Medtronic Senior Software Engineer | Jul 2021 - Present

• Prototyped and integrated a machine learning model for sleep detection using Onnx into the Medtronic DBS Clinician programmer.

• Specialized in rendering visual representations of volume of activated tissue using OpenGL..

Medtronic Software Engineer II | Jul 2019 - Jul 2021

• Implemented features for real-time LFP streaming, data visualization, volume of neural activation visualization, and Percept BrainSense feature that adapts DBS therapy to changes in patient LFP.

Medtronic Associate Software Engineer | Jul 2018 - Jul 2019

• Supported the development of applications for deep brain stimulation and spinal cord stimulation devices using Java and C++.

• Assisted with testing, debugging, and documentation of software components.

• Learned new technologies and tools to improve skills and productivity.

Software Engineering Intern | Jun 2015 - Jul 2018

• Worked on mobile and Linux application development projects for various medical devices using Java, C++, and OpenGL.

• Created prototypes, mockups, and user stories for new features and enhancements.

• Performed unit testing, integration testing, and user acceptance testing.

Software Patents

• Graphical display of volume of activation (US20220351462A1) | Nov 2022

• Brain stimulation and sensing (EP4084861A1) | Nov 2022

• Interactive clinician reports for medical device therapy (WO2022126059A1) | TBD

Education

University of Northwestern - St. Paul

Bachelor of Graphic Programming, 2013 - 2018