MB Parsa

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Rapid advancement from software engineer to VP of Engineering in 5-years at a neurotech company that transforms data acquisition and analysis to drive research innovation and optimize patient outcomes. Impactful, hands-on experience developing software platform capabilities to optimize hardware performance and accuracy.

Currently seeking a new opportunity to help an innovative company scale its ecosystem and drive growth.

Professional Experience

Neuralynx Inc | Bozeman, MT
Vice President, Engineering | Dec 2019 - Present

- Streamlined the transition from proof-of-concept to production level code that reduced person-hour engineering by 30% across software and device firmware development
- Revamped architecture from monolithic to microservices model that doubled the simultaneous electrode channel recording rate and offers continuous performance improvements
- Designed cloud-based application service for legacy hardware setup that reduced support requests by 40%
- Work with TUV/FDA agencies to ensure compliance with international medical product regulations, resulting in a streamlined audit approval that significantly reduced development costs and eliminated any disruption within sales channels

Senior Software Engineer | May 2019 - Dec 2019

- Designed and developed a network-based time synchronization solution, maintaining sub-millisecond accuracy across devices, which resulted in a 30% sales increase
- Implemented a proprietary, scalable build automation and testing system using Docker and PowerShell
- Designed and implemented v1.0 software suite for neuronal stimulation that enabled precise control over brain tissue stimulation

Software Engineer | Jul 2017 - May 2019

- Revamped video recording solutions using hardware accelerators tripling the number of simultaneous real-time recordings
- Introduced and built tools and infrastructure for continuous integration, resulting in a 70% reduction in production bugs
- Combined industrial machine vision cameras with precision time protocol to develop the industry's first high-precision neural-video recording system

Software Engineer Intern | Jan 2016 - May 2017

- Imported existing control and data pipeline software into Python, bringing data streams from hardware into real-time user environment data analysis and visualization systems
- Collaborated with hardware engineering to develop a lossless compression algorithm to reduce wireless transmission data size by 60% and effectively boost implantable device battery life

Research

Research Associate, Neuroscience Research Lab | **Montana State University, Bozeman, MT**
Research Intern, System Biology lab, Dept. of Mathematics | **University of Wisconsin-Madison, Madison, WI**

Education

Master of Science in Computer Science | **Montana State University, Bozeman, MT**

Master of Science in Biotechnology and Plan Genetics | **Isfahan University of Technology, Isfahan, Iran**