

Ajit Jairaj

Vice President of Research and Development, Koios Medical

Executive Summary

Accomplished executive with over a decade of leadership in pioneering AI-driven diagnostic systems for global healthcare applications. Expert in steering the development, validation, and regulatory clearance of cutting-edge medical devices. A proven track record for cultivating strategic partnerships, driving technological innovations, and leading high-performance teams to achieve exceptional outcomes.

Professional Experience

Koios Medical

VP of Research and Development, 2013-Present

- Spearheaded the development of AI-driven systems for cancer diagnosis, achieving FDA 510k clearance and CE Mark certification. Technology is deployed across numerous countries, enhancing global access to healthcare.
- Planned and executed several multi-site multi-reader studies to validate the accuracy of our AI medical device, demonstrating superior sensitivity and specificity to expert human physicians.
- Worked in direct collaboration with luminaries in the field of radiology, such as Dr. Wendie Berg, Dr. William Middleton, and Dr. Edward Grant to ensure that our AI systems meet the rigorous requirements of clinical environments and align with existing clinical standards including BI-RADS and TI-RADS .
- Led the development of NLP based tools for analyzing and structuring data from unstructured clinical reports and dictations. This technology is crucial for efficient data collection for training and validating our systems.
- Directed the R&D team in developing OCR based tools which parse medical images and pre populate clinical reports, eliminating manual labor and significantly improving workflow efficiency.
- Cultivate a culture of ownership and innovation within the R&D team, encouraging members to lead individual projects and present their results to the company as a whole. Encourage continual learning and awareness of the current state of the art through activities such as a regular Journal Club.
- Conducted a study in collaboration with Dr. Wendie Berg which demonstrated the AI system's ability to identify a rare and evasive subclass of breast cancer, triple negative cancers.

- Conducted a study in collaboration with the Dr. Susan Love Foundation in which we demonstrated the AI system's potential for use as a triage device in Low-Middle Income Countries (LMIC), where access to high-end equipment and skilled physician is severely limited.
- Oversaw a large-scale relational database project, integrating vast amounts of patient data, medical images, and pathological data to support advanced AI research and development efforts

Power Map

Machine Learning Engineer, Summer 2013

- Played a key role in the development and testing of an innovative neural network system for identifying and characterizing electrical devices through power lines, with the goal of enhancing energy management and efficiency.

D&SCI

DSP Engineer, 2009-2013

- Research and development of advanced facial recognition systems, facilitating functions such as biometric access control and person-identification at a distance. Developed systems which were scalable and robust to various operational challenges, significantly enhancing security and operational efficiency.

Skills and Expertise

- **Strategic Leadership:** Proven ability to guide technological innovation from conception through to market success. Adept at forming and leading cross-functional teams.
- **Regulatory Expertise:** Deep understanding of global medical device regulations, having secured FDA 510k clearance and CE Mark approvals for multiple medical devices
- **Technical Acumen:** Comprehensive expertise in software development, machine learning, and system validation. Proficient in multiple programming languages and data analysis tools.
- **Collaborate Innovation:** History of productive partnerships with leading medical professionals, designing and refining our medical devices to suit clinical needs.
- **Programming Proficiencies:** Expert in C++, C#, Python, SQL, Javascript, MATLAB; specialized in computer vision, data science, and statistical analysis.

Education

Rutgers University

BSE Electrical Engineering, Summa Cum Laude, 2004-2008