

Tobi Adejumo

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PROFESSIONAL SUMMARY

Senior Engineering Manager with a PhD in Biomedical Engineering and over 7 years of experience leading the end-to-end product lifecycle for complex medical and hardware/software systems. Proven ability to lead New Product Introduction (NPI) and Sustaining Engineering functions, driving programs from concept and architecture through manufacturing transfer and validation. Combines a deep technical background in medical imaging systems and system-level architecture with exceptional leadership skills to improve yield, reduce costs, and enhance product quality in fast-paced, regulated environments. Adept at mentoring high-performing teams and communicating strategy to executive leadership.

RELEVANT SKILLS

- **Engineering Leadership & Program Management:** New Product Introduction (NPI), Sustaining Engineering, Cross-Functional Team Leadership, End-to-End Development Lifecycle, Risk & Schedule Management, Agile Execution
- **Manufacturing & Process Excellence:** Process Optimization & Validation, Root Cause Analysis, Continuous Improvement, Design for Manufacturability (DFM), Cost Reduction, HW/SW Integration
- **Regulatory & Quality Systems:** FDA/ISO Compliance, Technical Documentation, System Validation Protocols, Quality Enhancement, CAPA Execution
- **Technical & Analytical:** Medical Device Manufacturing, Imaging & Display Technologies, System Architecture, Python (Pandas, Scikit-learn), SQL, Minitab, R, Tableau

PROFESSIONAL EXPERIENCE

Lions of Illinois Eye Research Institute | Chicago

Engineer & Program Manager, Imaging Systems

01/2021 - Present

- Led the complete New Product Introduction (NPI) lifecycle for a novel medical optical imaging system, driving the project from concept and architecture through hardware integration, software implementation, and final process validation.
- Directed sustaining engineering efforts for a custom hardware system (200K A-scan/sec camera), achieving a 185% improvement in system performance, yield, and high-resolution image rendering quality.
- Authored and executed over 20 validation protocols and technical documents to ensure system-level performance met all technical requirements and design controls.
- Managed cross-functional engineering and research teams to define technical specifications, track implementation, and ensure alignment with project deliverables and business goals.

ThinkCell | Remote

Consultant, Technical Strategy

04/2025 - 05/2025

- Designed modular AI architecture and SaaS roadmap to drive VinoBiotics' expansion into four global wine markets, targeting \$100M revenue.
- Led a cross-functional strategic project to define the technology roadmap for a client's expansion into global markets, focusing on modular AI architecture and robotics automation.
- Owned the competitive analysis of hardware and software solutions, abstracting key technical insights into an actionable path forward that secured cross-functional consensus from client leadership.

Psychoplastogen Therapeutics Firm | Remote

Consultant - Life Sciences

02/2025 - 03/2025

- Conducted a critical analysis of over 50 datasets and 100+ neurological studies, deriving key strategic insights that shaped pivotal clinical trial recommendations.
- Provided a comprehensive evaluation of the regulatory environment across 35 psychology-related trials, detailing 15 unique assets to position our efforts within the competitive neurology landscape strategically.
- Performed a strategic review of extensive market trends and financial data over the past five years, crafting a forward-thinking investment strategy that aligns with evolving market dynamics in drug development.

Management Consulted | Remote

Consultant - Mergers & Acquisitions

12/2024 - 02/2025

- Designed an M&A strategy leveraging AB InBev's global distribution network (500+ distributors, 215 facilities) to scale Olipop's retail presence by 30%.
- Developed a multi-phase execution roadmap outlining supply chain efficiencies, pricing optimization, and commercial synergies to drive \$500M in projected revenue growth.
- Selected as semifinalist among 250+ teams in a global strategy competition hosted by Management Consulted.

Center for Advancing Innovation | Bethesda, MD

Innovation Fellow & Program Lead

04/2024 - 12/2024

- Directed the commercialization program and technology transfer for a patented neuromodulation device, managing the project plan across market validation, technical requirements, and funding strategy.
- Collaborated with over 15 external stakeholders (physicians, researchers) to integrate Design for Manufacturability (DFM) principles and ensure product design aligned with user needs and regulatory considerations.

Hamoye LLC | Hamilton, Bermuda

Head of Programs (Lead Consultant)

02/2020 - 11/2020

- Managed the full development lifecycle for five new technical programs, from curriculum design to platform integration and launch, resulting in a 35% growth in enrollment.
- Championed continuous process improvement initiatives across program delivery, reducing operational costs by 35% and shortening project timelines by 15%.

Pregnancy Manager | Remote

Co-founder (Tech Lead)

05/2019 - 12/2020

- Co-founded a health-tech startup to tackle Nigeria's maternal mortality crisis (1,047 deaths per 100,000 live births) and developed a scalable technical roadmap.
- Designed and built an MVP with 3 core features (user registration, personalized dashboards, and expert Q&A), enabling engagement with 500+ users during pilot deployment.
- Led 3 pilot programs, engaging 1,000+ participants and uncovering regional drivers of maternal mortality, including unsafe abortions (13% in the South) and cultural barriers to hospital births in the North.

Univelcity | Remote

Android Engineer Consultant

08/2018 - 09/2019

- Led sustaining engineering for three commercial software applications, performing root cause analysis on 1,500+ user-reported issues to enhance product reliability and quality.
- Optimized validation and QA workflows, reducing test cycles by 40+ hours per release and accelerating deployment schedules.

EDUCATION

University of Illinois Chicago, PhD in Biomedical Engineering | Chicago, IL

01/2021 - 05/2025

- *Award:* UIC Dean's Scholar Fellowship (\$53k),
2024 College of Engineering Exceptional Research Award (*ranked 1st among 80 PhD students*)
- *Thesis:* Quantitative Analysis of Retina Neurovasculature

Federal University of Agriculture Abeokuta, BSc in Computer Science | Ogun, Nigeria

01/2014 - 04/2018

- *Award:* Top 1% of Graduating Class.