



JEFFREY R. MILLER

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Engineering Leader | Driving Meaningful Impact Through Technology

www.humani.se

Seasoned startup veteran with 17+ years in web programming, product development, and engineering leadership. Proven in managing multidisciplinary teams and developing FDA-regulated SaMD products. Full-stack Ruby on Rails expert, passionate about building scalable systems and engaging user experiences. Skilled in driving projects from concept through deployment, aligning engineering with business goals to deliver impactful results.

Product & Team
Development

Compliance &
Regulatory

Strategic
Vision

AI & ML
Integrations

Budget/Resource
Optimization

WORK EXPERIENCE

COGNOA

Vice President, Engineering | March 2023 - Current

- Led cross-functional collaboration with Regulatory, Legal, Compliance, Product, Sales, and QA teams, ensuring alignment and execution on key initiatives that drove clinical adoption.
- Accelerated release cycles for FDA-approved AI/ML-powered SaMD diagnostic from weeks or months to days by reanalyzing, redefining, and optimizing design controls (21 CFR 820.30), implementing ETL automations, and streamlining regulatory and quality workflows.
- Mentored and guided managers across mobile, web, data science, and DevOps teams, fostering collaboration and alignment to improve delivery speed and product quality.
- Directed the achievement and maintenance of ISO 13485 and SOC 2 Type II certifications.
- Strategically optimized engineering budgets, including reconfiguring AWS infrastructure, driving departmental costs down 25% saving over \$350k while enhancing operational efficiency.

Senior Director, Engineering | July 2021 - March 2023

- Led talent acquisition, growing the team from 5 to 30 while maintaining a strong company culture through effective performance management and ongoing team engagement.
- Achieved the highest talent retention rate in the organization, fostering a positive, inclusive work environment with the lowest turnover across all departments.
- Negotiated strategic vendor contracts for QA testers and developers, securing optimal terms while maintaining high-quality standards, resulting in \$120k in savings within the first year.

Director, Engineering | January 2021 - July 2021

- Developed and executed people strategies that empowered teams and managers, fostering collaboration and reducing silos, leading to increased productivity and promotion rate..
- Modernized legacy infrastructure, adopting cutting-edge technologies and enforcing strict department-wide code quality standards with automated tools, CI, and monitoring services, leading to reduced bugs, enhanced performance, and improved customer success.

Lead Engineer | September 2017 - December 2020

- Collaborated closely with data science, clinical research, and regulatory teams to design and execute clinical validation trials and studies, securing FDA Breakthrough Device designation.
- Led the delivery of multiple high-quality, HIPAA-compliant products under tight deadlines with complex, cross-functional requirements.

Senior Software Engineer | August 2015 - August 2017

- Served as the sole full-stack engineer, supporting web, iOS, and Android platforms while provisioning and managing all backend operational infrastructure.
- Designed and implemented scalable data models, APIs, and web interfaces from the ground up, ensuring robust performance and integration.

FUNNY OR DIE

Software Engineer | March 2013 - August 2015

- Built and maintained highly visible, interactive features for FunnyOrDie.com, contributing to over 20M unique visits and nearly 65M video views per month.
- Designed, developed, and implemented an on-site activity feed system, processing millions of user interactions monthly, significantly boosting user engagement.
- Created several popular "one-off" parody sites, including what-name.net and scienceology.fm, expanding the brand's creative reach.
- Played a key role in the successful redesign and relaunch of the site in August 2013.

COVERHOUND, INC.

Software Engineer | August 2011 - February 2013

- Developed the first comparison shopping platform for home and auto insurance, delivering real-time, actionable rates as the first engineering hire.
- Drove product development from feature inception to full integration, wearing multiple hats as designer, engineer, and ops admin in a fast-paced startup environment.
- Led front-end design and developed scalable infrastructure to support rapid growth, ensuring seamless user experiences for customers and agents.

RENASCEANCE IT CONSULTING

Software Developer / Network Technician | January 2011 - August 2011

- Provided on- and off-site technical support, asset management, and 24/7 monitoring for over 30 clients across the Bay Area.
- Led web application development and infrastructure projects using LAMP and RoR stacks.
- Delivered desktop support for Windows, macOS, and *nix systems and administered network, server, and email systems.
- Custom-designed and built desktop computers tailored to client needs, optimizing performance and cost efficiency for various business applications.
- Managed virus/malware prevention and removal to ensure client system security.

ASTREYA PARTNERS

Technical Support Associate @ Google, Inc. | June 2010 - September 2010

- Delivered level 1 and 2 technical support across multiple TechStop locations on the Google Mountain View Campus, handling hardware deployments, software installations, VPN and WiFi configurations, mobile device support, domain administration, and ticket management.
- Supported various operating systems, including Windows XP/Vista/7, macOS, and Linux/Ubuntu.
- Utilized advanced network and data encryption tools, such as PGP, SGEasy, FileVault, and BitLocker, to ensure data security.

XOJET

IT Support Specialist & Software Engineer | July 2006 - May 2010

- Provided enterprise-level IT helpdesk support across multiple locations, managing ticketing systems and developing custom internal software applications.
- Developed a Ruby on Rails-based synchronization system for Active Directory to Blackberry contacts, recognized as "leading edge" by the CIO and successfully implemented in production.
- Designed and tested financial reporting and reliability analysis systems, conducting four months of QA to ensure accuracy in reports exceeding \$20M.
- Managed all employee computer and mobile device assets, including the repair and deployment of reassigned or refurbished equipment.

EDUCATION

Zero to Deep Learning

UC Berkeley | 2018

- An intensive, hands-on training program designed to take participants from a beginner level to a proficient understanding of deep learning concepts and techniques, including convolutional and recurrent neural networks and model evaluation and deployment.

Notre Dame Du Namur University

B.S. Computer and Information Science, Software Engineering | 2011

- Received an outstanding academic achievement award, graduating Summa Cum Laude with a 3.92 GPA.

VOLUNTEERING

Mentorship

STEM NOW @ SJSU | October 2014 - April 2015

- Facilitated two beginner Ruby on Rails workshops for STEM NOW, an organization focused on providing networking and mentoring opportunities for women. These workshops introduced students to modern web technologies as an alternative to Java.
 - 10/13/2014 - Building a Simple HackerNews / Reddit Clone
 - 04/03/2015 - Building a Blogging Engine