William Brendel, PhD

ENGINEERING & ML EXECUTIVE · AI/ML · REGULATED SAAS

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SUMMARY

Engineering executive with 20+ years spanning AI R&D and production platform leadership. Shipped AI systems serving 480M+ combined DAU across Snap, Amazon, and Google; cut production downtime by 70%; raised $4M in seed funding. Deep experience operating regulated, mission-critical SaaS platforms (SOC 2 Type II, HIPAA, NIST). Author of 30+ patents and publications with 2,200+ citations, and bestselling co-author of *The AI Transformation*.

SKILLS

AI & Machine Learning: Generative AI, Large Language Models (LLMs), LLM Orchestration, AI Agents, Retrieval-Augmented Generation (RAG), NLP, Computer Vision, Recommendation Systems, ML Infrastructure & Model Evaluation, Semi-Supervised Learning

Engineering & Infrastructure: Distributed Systems, Platform Architecture, AWS, Node.js, Express.js, .NET 8, CI/CD, GitHub Automations, APIs, Real-Time Processing

Leadership & Strategy: Engineering Management, Team Scaling & Hiring, Roadmaps, OKRs, Budget Management & P&L, M&A Technical Due Diligence, Product Strategy, Agile, Jira, Asana

Security & Compliance: SOC 2 Type II, HIPAA, NIST, Data Privacy, Penetration Testing, Incident Response, SLAs

PROFESSIONAL EXPERIENCE

Co-Founder, Chief AI Officer — Stealth AI Startup *January 2026 – Present*

Founding a company at the crossroads of AI and water management. Reno, NV.

Founder / General Partner — Crossroads Venture Studio, Inc. *May 2023 – July 2026*

Hands-on technical architect and operator across a portfolio of AI-driven ventures.

- Served as primary technical architect for portfolio companies, defining AI orchestration and infrastructure strategies.
- Orchestrated technical validation and go-to-market execution for 20+ internal and external teams; 61.5% of portfolio ventures reached seed funding or first-customer bootstrapping.
- Built a proprietary incubation framework that accelerates AI product delivery, reducing time-to-market for generative AI features through standardized architecture and automated CI/CD pipelines.

VP, Engineering — iScribeHealth *January 2025 – August 2025*

Engineering executive for an AI-driven clinical documentation (ambient scribe) SaaS platform.

- Led a 10-person engineering organization with a $2M annual budget; partnered with the CEO and Product to align the technical roadmap and OKRs with a $100M ARR growth target.
- Drove delivery of AI-driven Evaluation & Management (E&M) coding suggestions, improving provider billing outcomes by 10–20%; expanded integration with Athena's ambient scribe system to 200+ customers.
- Guided the organization to SOC 2 Type II and HIPAA compliance; oversaw remediation of 100% of high-severity vulnerabilities from the company's first penetration test.
- Drove platform migration from .NET 4 to .NET 8, reducing production downtime by 70%; oversaw authentication migration from Azure Entra ID to Auth0.
- Owned engineering delivery, platform reliability, and production readiness across all customer-facing systems.

Co-Founder, Chief Science Officer & Head of Product — Heali AI *May 2019 – March 2023*

Co-founded an AI-driven HealthTech startup for personalized nutrition in chronic disease management.

- Secured $4M in seed funding and reached an 8-digit valuation by establishing the core intellectual property and technical roadmap.
- Architected a semi-supervised AI pipeline that aggregated and cleaned 2B+ nutrition data points into a proprietary engine supporting 200+ medical conditions.
- Launched B2C applications on iOS and Android to 10K+ active users; bootstrapped a CDC-compliant Diabetes Prevention Program secured by two nationwide healthcare provider partnerships.
- Recruited and directed a 12-person multidisciplinary organization of engineers, product designers, and UX researchers.

Technical Program Manager / Senior Research Scientist — Snap Inc. *May 2016 – May 2019*

Directed a 50+ person R&D organization across 40+ concurrent projects, shipping research into global products for 188M+ DAU.

- Shipped privacy-preserving behavioral recommendation systems at 188M+ DAU scale: friend recommendations revived 14% of inactive users and lifted daily engagement 7%; Bitmoji chat recommendations lifted engagement 8%.
- Delivered internal AI products, including sentiment-based support-ticket sorting that increased support-team productivity by 71%.
- Expanded R&D into 10+ domains (face analysis, NLP, scene understanding, AR, video analysis); aligned roadmaps across Business, Design, Data Science, Engineering, and Legal.

Machine Learning Researcher / Technical Product Manager — Amazon · A9 *November 2012 – May 2016*

Designed and delivered high-scale computer vision products for A9's visual search team, serving 200M+ DAU across the Amazon ecosystem.

- Core member of the Technical Acquisition Committee, performing M&A technical due diligence; authored 8 patents and 7 publications during tenure.
- Launched mobile brand-logo detection and recognition running in real time at 100fps on mobile hardware; granted 9 patents for visual search, object recognition, and ML infrastructure.
- Blueprinted the global visual-search database and the proprietary annotation/evaluation platform managing a corpus of 12M+ images and labels; owned the product lifecycle from R&D through production.

Machine Learning Engineer — Google · YouTube *July 2011 – November 2012*

- Initiated and led "Suggested Edits," a self-correcting video-quality detection and correction system scaled across the entire YouTube corpus (94M+ DAU); created 10+ creator-facing video effects and filters; granted 2 patents.

Application Engineer — Infineon Technologies *June 2003 – June 2004*

- Engineered hardware test platforms and drivers in C and Assembly (30% faster validation cycles) and built TCL board-test automation (40% less manual testing effort).

PUBLICATIONS & RESEARCH

- Co-author, *The AI Transformation: Thriving Within Civilization's Next Big Disruption* — chapter "AI: The Reality Beyond The Fantasy." Amazon bestseller.
- 30+ patents and publications, 2,200+ citations — scholar.google.com/citations?user=mR3fVeIAAAAJ
- Publication Chair, IEEE/CVF CVPR 2017–2019 (2,000+ papers/edition) and IEEE WACV 2018–2019.

EDUCATION

- PhD, Computer Science & Artificial Intelligence — Oregon State University, Corvallis, OR (June 2011)
- MS, Electrical Engineering & Computer Science — CPE Lyon, France (2005)