Alessio Signorini

CTO · PRODUCT LEADER · AI RESEARCH

ABOUT

- Santa Barbara, CA
- US Citizen
- alessio@signorini.us

ONLINE

- alessiosignorini.com
- @a_signorini
- alessio-signorini
- alessiosignorini
- Google Scholar

SKILLS

AI & Machine Learning
LLMs, Fine-tuning, RAG, AI Agents, Foundation Models, NLP, Deep Learning, Computer Vision, Genetic Algorithms

Infrastructure & Data
Distributed Systems, Data Pipelines, Kubernetes, AWS/GCP, CI/CD, SRE & Incident Response, Real-time Systems, IoT

Health Tech & Security
EHR/Claims Integration, HIPAA, ISO 27001, Cyber Essentials+, Clinical Studies, Good Clinical Practice

Product & Leadership
Strategy & Roadmaps, Technical Program Management, Cross-functional Leadership, Fundraising & M&A

Programming
Python, Ruby, TypeScript, Swift, Go, Rust, C, Java, Perl, SQL, Assembler

Research & Publications
18 Papers, ~3,000 Citations, 10 Patents, 13+ Talks, PLoS ONE, KDD, WWW, IEEE

LANGUAGES

Italian — Native speaker

English — Fluent

French — Intermediate

Spanish — Novice

SUMMARY

20+ years leading product and engineering from founding to scale — Director of Technology at Ask.com (IAC) and OneRiot (acq. Walmart Labs); co-founded IMRSV (acq. Kairos) and Evidation Health ($1B+ digital health, millions of users). Led cross-functional orgs spanning product, engineering, infra, security, data science, and TPM. PhD in CS (AI & Epidemiology) with 18 publications (~3,000 citations), 10 patents, and 13+ conference talks. TechStars mentor, angel investor, and startup advisor. Currently building multi-modal health foundation models and LLM-driven workflows.

EXPERIENCE

Co-Founder & CTO
Evidation Health · Santa Barbara, CA
2013 – present

Digital health platform connecting millions of users to research and health insights with AI across every product. Own engineering, product, infrastructure, security, research, and TPM.

- Scaled from 4 co-founders to 370+ employees; raised $250M+. Owned full product lifecycle, roadmap, prioritization, delivery
- Built HIPAA-compliant infrastructure processing billions of data points; lead security program (ISO 27001, Cyber Essentials+); defined incident response, on-call, and observability standards
- Developed patient-mediated EHR integration (e.g., Epic, Cerner) and claims pipelines (e.g., CMS BlueButton); operate user marketplace with payments
- Deployed ML/NLP for digital biomarkers and cognitive decline detection; building multi-modal foundation models (e.g., wearables, EHR, demographics) for condition detection
- Integrated LLMs and AI agents into clinical workflows, internal tooling, and cross-team delivery across data science, analytics, and clinical operations
- Helped shape commercial strategy: partnership pricing, engagement frameworks, and B2B deal structures with 20+ pharma clients
- Built engineering career ladder, core competency framework, and company-wide AI/ML training curriculum

Co-Founder & CTO
IMRSV / Immersive Labs · New York, NY
2011 – 2013

Computer vision startup — real-time face detection and audience analytics for digital billboards. TechStars NYC 2011.

- Real-time face detection, demographic estimation, and audience attention tracking
- Designed and shipped ML backend, analytics dashboard, and advertiser APIs
- Featured on CNN, NYT, Huffington Post, Business Insider
- Acquired by Kairos (2013)

Director of Search Technology
OneRiot · Boulder, CO
2009 – 2011

Real-time social search engine indexing and ranking content shared across social networks.

- Ingested and ranked 20M+ URLs daily using ML models trained on social signal velocity, reshare graphs, and real-time engagement patterns
- Led team of 10; high-throughput bare-metal infrastructure (pre-cloud)
- 1 patent: popularity-based ranking for social search
- Acquired by Walmart Labs (2011)

Director of Technology, Answers
Ask.com · Piscataway, NJ
2006 – 2009

Search technology, NLP, classification and spam detection for a top-5 US search engine.

- Semantic search, query understanding, and answer extraction using NLP/ML
- Built evaluation frameworks for search relevance and quality at web scale
- Led cross-functional teams of 20+ engineers, scientists, and PMs
- Performed technical due diligence for parent company IAC on acquisition targets
- 7 patents: ranking, classification, answer confidence, personalization

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EDUCATION

PhD, Computer Science (Artificial Intelligence & Epidemiology)　　　2004 – 2014
University of Iowa · Iowa City, IA

- Thesis: "Use of Social Media to Monitor and Predict Outbreaks and Public Opinion on Health Topics"
- Robert Wood Johnson Foundation — #1 Most Influential Research (2011)
- Published in PLoS ONE, KDD, WWW, IEEE ICSC

Laurea (Master's equivalent), Computer Science　　　2000 – 2004
Università di Pisa · Pisa, Italy

- Thesis: "Helios: A Complete Meta-Search Engine"
- Co-authored "The Indexable Web is More than 11.5 Billion Pages" (WWW 2005, 700+ citations)
- International Olympiad in Informatics (IOI) — Team Italy (1999)

PUBLICATIONS & PATENTS (28)

Cognitive Digital Biomarkers from Automated Transcription of Spoken Language　　2022
J. Prevention of Alzheimer's Disease · Tavabi, Stuck, Signorini, et al.

Developing Measures of Cognitive Impairment from Consumer-Grade Multimodal Sensor Streams　　2019
KDD 2019 · Chen, Jankovic, Foschini, Signorini, et al.

Collecting and Analyzing Millions of mHealth Data Streams　　2017
KDD 2017 · Quisel, Foschini, Signorini, Kale

The Use of Twitter to Track Levels of Disease Activity and Public Concern in the US during the Influenza A H1N1 Pandemic　　2011
PLoS ONE · Signorini, Segre, Polgreen

The Indexable Web is More than 11.5 Billion Pages　　2005
WWW 2005 · Gulli, Signorini

ADVISORY & TEACHING

Mentor, TechStars
TechStars LA, Healthcare, and Space programs — advising early-stage founders on product, technology, and growth strategy

Startup Advisor & Angel Investor
Strategic and technical advisory for startups (e.g., Generative Expert Labs, Callida Energy) and VC due diligence; technical due diligence for IAC (Ask.com parent)

Guest Lecturer & Educator
13+ talks at conferences and industry events; regular guest lectures on AI/ML at universities and companies; deliver internal AI/ML training at Evidation

Graduate Researcher, University of Iowa
Graduate research in web-scale information retrieval, social media analysis, and computational epidemiology under Prof. Alberto Segre. Published foundational work on web size estimation (WWW 2005, 700+ citations) and developed early methods for mining social media for public health surveillance. Developed and taught intro-to-Python curriculum and TA'd undergraduate CS courses.

Program Committees
Program committee member and peer reviewer: W3PHI, WWW, W3PHIA, TheWebConf, KDD, WSDM