Zachary King

Engineering and product leader with 10+ years delivering cloud- and AI-powered solutions across healthcare, biotech, and life-science R&D. Deep hands-on expertise (Python, TypeScript/React, Dart/Flutter, Terraform, GCP/AWS) paired with a record of building high-trust, high-autonomy teams and translating vision into shipped, compliant products. Led org-wide initiatives bridging research, product, and operations.

San Diego zaking17@gmail.com brainsbrainsbrains.com in/zakandrewking

Core Competencies

- Full stack software engineer
- Org design & people leadership
- Technical & product strategy
- Cloud & data architecture
- Security & regulatory compliance (SOC 2, HIPAA)
- AI/ML productization
- EHR interoperability (FHIR/HL7)
- Budgeting & vendor management

EXPERIENCE

Delfina — VP of Engineering

San Diego, CA · May 2022 – Present
AI-driven pregnancy-care platform connecting providers and patients via mobile apps and EHR integrations.

- Supported the executive team to raise a $17 M Series A (Jan 2025)
- Scaled engineering from 2 → 11 software engineers and added the company's first Program Manager, instituting leveling, goal-setting, and continuous feedback practices; established hybrid hubs in San Francisco and Seattle and designed structured recruiting & interviewing loops.
- Hands-on contributor in the early phase—shipped the mobile reminders feature in Flutter, laying the foundation for patient engagement and on-time care-plan adherence.
- Leading long-term strategic planning for the provider-facing practice application and the engineering automation roadmap, aligning technology north-stars with product and clinical objectives.
- Own architecture and delivery of patient-facing Flutter apps, Postgres/BigQuery analytics platform, and risk-prediction AI (proprietary ML + LLM/RAG) pipelines.
- Drove SOC 2 and HIPAA compliance efforts, establishing Terraform-managed, auditable infrastructure on GCP.

- Led FHIR-based integrations with multiple EHRs, enabling automated onboarding and care-plan delivery.

Amyris — Associate Director DevOps / Lead DevOps Engineer

Nov 2019 – May 2022
Synthetic-biology innovator producing sustainable chemicals via engineered microbes.

- Founded and grew the DevOps function, covering platform engineering, CI/CD, project management, budgeting, hiring, and performance metrics.
- Expanded remit to R&D data engineering, data-science platforms, and GCP cloud infrastructure.
- Delivered a full data-warehouse redesign supporting high-throughput strain-engineering workflows.
- Co-authored academic publication detailing a DARPA-funded effort to engineer >400 production strains.

UC San Diego / NNF Center for Biosustainability — Project Scientist & Principal Investigator

Jan 2017 – Oct 2019

- Led a multidisciplinary team developing biological "big data" simulations, visualizations, and knowledge bases.
- Published five peer-reviewed articles as PI; secured grant funding and collaborated across international sites.

UC San Diego — Graduate Student Researcher (Ph.D. Bioengineering)

Sept 2011 – Dec 2016
Dissertation: "Optimization of microbial cell factories with systems biology."

- Developed algorithms for metabolic modeling and strain optimization; authored widely cited publications.
- Created open-source tools Escher and BiGG Models, now standard in the metabolic-engineering community.

TECHNICAL SKILLS

- Languages & Frameworks: Python, TypeScript/React/D3, Dart/Flutter, SQL (Postgres, SQLite), Objective-C

- Cloud & DevOps: GCP, AWS, Azure; Terraform, Docker/K8s; Linux administration; CI/CD; observability (Datadog, SolarWinds)
- Data & AI: Jupyter, ML pipelines, BigQuery, data visualization, LLM/RAG systems
- Compliance & Security: SOC 2, HIPAA, cloud networking & IAM

TRAINING & CERTIFICATIONS

- Certified Scrum Product Owner (2017)
- AMA 5-Day MBA (2021)

PUBLICATIONS

30+ peer-reviewed publications · 5,000+ citations · H-index 25 — Google Scholar

EDUCATION & AWARDS

- Ph.D., Bioengineering — University of California, San Diego (2016)
- B.S.E., Biomedical Engineering — University of Michigan, Ann Arbor (2011)
- NSF Graduate Research Fellowship (2013)
- Jacobs Fellowship, UCSD (2011)

PROJECTS & LINKS

- Personal website: brainsbrainsbrains.com
- Side project: Brainshare (source on GitHub) - A realtime collaborative spreadsheet that instantly generates new rows & columns with AI suggestions.
- Delfina Pregnancy Tracker app: iOS • Android