

Zachary King

Software Engineer and Team Lead 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. I love early stage products and 0→1 product engineering.

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Core Competencies

- Full-stack web & mobile development (React, Flutter, GraphQL/REST)
- System architecture (AWS/GCP, serverless, event-based, and traditional)
- Data engineering & analytics (Postgres, BigQuery, Dagster, Apache Beam)
- AI/ML pipelines: risk-prediction models, LLM-powered RAG services
- Cloud & DevOps: Infrastructure-as-code, CI/CD, observability
- Security & regulatory compliance (SOC 2, HIPAA, IAM, network hardening)
- EHR interoperability (FHIR/HL7)
- Recruiting, team leadership, establishing dev team culture

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 of Engineering, DevOps & SRE *Dec 2021 – May 2022*

— Software Engineer, DevOps & SRE *Nov 2019 – Dec 2021*

Synthetic-biology innovator producing sustainable chemicals via engineered microbes.

- Led the DevOps & SRE capabilities at Amyris, covering platform engineering, uptime, 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 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, Terraform, SQL, 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](#)