Paul Harsha

SEASONED SOFTWARE ENGINEERING AND INFRASTRUCTURE LEADER

BIG DATA | DATA INTEGRATION | DATA MINING | SAAS | DEVOPS | SCALABLE DISTRIBUTED SYSTEMS | MOBILE START-UPS | PRODUCT & PROJECT MANAGEMENT | SECURITY | QA | IT | PRODUCT DEVELOPMENT

Technology executive **expert in taking companies to the next level by building and scaling teams, infrastructure, and applications**. Deeply understand both business requirements and underlying technology levers and tradeoffs. Deliver consistent high-quality software releases on-time and on-budget. Strong hiring networker and recruiter of high performers.

Played key role in taking companies and products from early-stage to enterprise-level success. Possess expertise in infrastructure, internal tools and processes, security, and facilities buildout. Hold core competencies in lightweight/Agile processes, people management, product development, hosted production operation, internally facing IT services, and roadmap execution.

PROFESSIONAL EXPERIENCE

TRANSLOC, Durham, NC (remote) • 01/2023-02/2024

Provider of microtransit, on-demand services and fixed-route transportation solutions for cities, universities, and transit operators. **HEAD OF ENGINEERING**

Hired as first-ever VP Engineering over all products, after 3-way merger and subsequent acquisition resulted in mass exodus of talent including entire DevOps team, all tech leads, and head of product. Tasked with stabilizing products, implementing technical roadmap, reducing R&D spend, and reaching breakeven. Manage 100% remote/distributed team of 20–40 people in software development, QA, and DevOps across 5 product lines (3 legacy, 2 go-forward), including mobile apps for all.

- Achieved monthly profitability 3x within first year, with final 2 months of year consecutively profitable.
- Facilitated first-ever break-even quarter Q4 2023 by reducing monthly hosting cost \$107K and use of outside contractors 78%.
- **Improved product stability an order of magnitude** by implementing technical roadmap, set of lightweight processes, and root-cause analysis/correction.
- **Upskilled and scaled engineering team** by recruiting/hiring several high-performing employees in DevOps and full-stack development, promoting 2 engineers to tech lead, and slashing dependence on outside contractors.

TORCHLIGHT (sold to LifeSpeak), Burlington, MA • 08/2020–07/2022 Startup creating digital-first caregiver-support SaaS solution. **DIRECTOR OF ENGINEERING**

Lead 5 FTE developers plus QA, DevOps and IT to strengthen engineering and increase innovation for Healthcare SaaS. Role was 1/3 management; 1/3 product vision, roadmap, and planning; and 1/3 day-to-day technology.

- Increased development productivity, quality, predictability, throughput, and responsiveness by hiring senior developers and dedicated QA resource, bringing outsourced AWS DevOps from Asia to U.S., and implementing 24x7 site monitoring/support.
- **Facilitated transparency, collaboration, and quality** by developing technology and analytics roadmaps, installing best engineering practices and regular sprints, providing Agile training, and setting up company Intranet.
- Improved site "stickiness" and end-user conversion by developing and releasing simplified user signup, ML-based content search, Snowflake/Tableau based reporting, community support for users, internationalization, and Android and iOS apps.
- Led company Infosec efforts as interim security officer while recruiting a full time InfoSec Officer, resulting in company
 achievement of SOC 2 Type 2 and HIPAA certifications.
- **Drove technical due diligence** and served as technical liaison during company sale to LifeSpeak, resulting in a successful sale and smooth and transparent acquisition.

GLANCE NETWORKS, Wakefield, MA • 07/2018–04/2020 *Leading provider of SaaS visual-engagement software.* **DIRECTOR OF ENGINEERING**

Led software development, QA, DevOps, and third-tier support for visual-engagement SaaS. Grew team from 8 to 15 FTE.

Led company transition to Agile, including employee training and management of Agile coach.

- Improved ease, effectiveness and response time of product support by combining dozens of existing deployed code bases into single repository on Gitlab, implementing formal software-escalation review process, and hiring sustaining engineer.
- Increased customer satisfaction and reduced customer onboarding time and complexity by driving product changes based on customer feedback about implementation issues and moving all ticketing and roadmap to Jira.
- Reduced system-deployment time from over a day to under an hour by improving and expanding build, QA/automation, and continuous integration (CI) capabilities, allowing simultaneous deploy to AWS and Azure
- Redefined overall company security posture by implementing ISO 27001 standard. PEN tests, BURP scans, and static analysis.

GINKGO BIOWORKS, Boston, MA • 01/2016–06/2018

Synthetic-biology startup employing software, hardware automation, and analytics to create custom microbes. **DIRECTOR OF INFORMATION TECHNOLOGY**

Hired by co-founder to build and scale infrastructure to support massive company growth. Joined as first IT hire and grew team to 3 plus outsourced resources. Owned budget and managed all aspects of stack and infrastructure: Python, Docker, AWS, hybrid cloud, security (GPDR, SOC2), Cisco Meraki, PostgreSQL, MySQL, Rancher/Docker, Chef, Ansible. Scaled infrastructure as company launched Bayer joint venture, grew from 45 to 300+ employees, and from 1 to 5 offices.

- Delivered 99.9999% system uptime (from approximately 75%) by replacing off-the-shelf network and computing infrastructure with highly scalable Cisco Meraki, hybrid-local (Thinkmate), and AWS-based systems. Drove improvements in release and development processes in collaboration with team. Handled DevOps duties as software team grew from 5 to 20 and moved from Waterfall to Agile.
- Designed and implemented support for next-generation sequencing (NGS) including scaling storage and analytics support from 10 TB to 500 TB (half petabyte).
- Reduced costs and increased business-application reliability and usability by implementing cloud-based systems for email, HR, payroll, hiring, support ticketing, procurement, planning, collaboration, and video conferencing.

BRIDGE INTERNATIONAL ACADEMIES, Nairobi, Kenya and Boston, MA • 01/2014-12/2015 SaaS technology powering operations of largest chain of low-cost private schools in sub-Saharan Africa. VICE PRESIDENT OF ENGINEERING

Recruited by CEO/Founder to lead development, QA, information technology, product and project management, and business analytics. Rebuilt and restructured technology team, adding product and project management and senior engineering talent. Grew globally distributed team (Africa, India, U.S.) from 40 to 55 while acting as software architect and owning budget.

- Enabled major corporate growth and expanded service reach by addressing significant and pervasive technical debt within core software systems. Academies established grew from 250 to 400+; teachers engaged increased from 2,000 to over 4,000; students served skyrocketed from 60K to over 100K; and operations expanded from Kenya to multiple countries.
- Established clearer deliverables and more predictable response times to field issues by introducing Agile processes, issue and asset tracking, and weekly business sync-ups.
- Facilitated greater system stability and scalability by moving infrastructure, source control, and continuous integration from inhouse to cloud (AWS). Improved flexibility, speed, and reliability of reporting and business analytics functions.
- Streamlined curriculum distribution and scheduling by shrinking data transfer time from school server to field e-Reader by an order of magnitude and by introducing lesson-content A/B testing.

ADELPHIC MOBILE, Waltham, MA • 01/2013–11/2013

SaaS startup (funded by Google Ventures and Matrix Partners) enabling efficient buying and selling of targeted mobile media. **VICE PRESIDENT, ENGINEERING**

Managed teams and owned budget for development, QA, DevOps, and product management. Grew team from 10 to 14.

- Enhanced product quality and scalability while lowering overall costs by driving improvements to SaaS infrastructure on AWS, initiating setup of staging server, and insourcing underperforming offshore-development office.
- Facilitated clear and predictable engineering deliverables by introducing Agile processes and short- and medium-term product schedules. Worked with business team to deliver first-ever product roadmap.
- Improved visibility into product state by consolidating 5 issue-tracking and request mechanisms into 1 (Pivotal Tracker) and integrating it with Zendesk customer-service application.

FUSESOURCE CORPORATION (ACQUIRED BY RED HAT), Bedford, MA • 08/2011-11/2012

Vendor of highly scalable, open-source data-integration and reliable-messaging products (ActiveMQ, Camel, and CXF). **VICE PRESIDENT OF ENGINEERING**

Recruited to provide leadership to talented development team needing focus and direction; created engineering organization that delivered enterprise-class products based on open-source and packaged for mainstream IT organizations; grew globally distributed team from 19 to 25; managed development, QA, DevOps, and documentation.

- Played key role in meeting executive team's goal to increase business value 250%, leading to sale of company to Red Hat. Drove development and infrastructure portions of acquisition.
- Streamlined product suite and messaging and shifted product positioning from "early adopter" to enterprise customer,
 resulting in creation of enterprise product line to incentivize subscriptions. Released IDE and management-console tooling as
 further value-add.
- Introduced product roadmaps, formal product lifecycles, supported-platform lists, and processes for enhancements and patch releases.
- Added enterprise-class stability and rigor to product line by implementing program meetings, repeatable schedules, and formal QA/release criteria.

ONLINE BUDDIES, Cambridge, MA • 06/2010–07/2011 *Industry-leading social-media company.*

CHIEF TECHNICAL OFFICER

Headed development, QA, IT, and operations; grew team from 17 to 25; managed \$4 million operating budget; drove transformation from single product to multiple concurrent web properties.

- Improved product quality and release repeatability by hiring release and DevOps engineers and implementing Agile processes.
- Increased web-property stability and scalability, enabling 75% increase in number of simultaneous users.
- **Drove launch of company's first mobile offerings** by turning around failing outsourced iPhone/Android development project.

ETURMS LLC, Cambridge, MA • 02/2009-05/2010

Turnkey sales solutions for manufacturers and retailers, combining eCommerce, SEO, social media, and infrastructure management. CHIEF TECHNICAL OFFICER

DATASYNAPSE (ACQUIRED BY TIBCO), Cambridge, MA • 02/2006-01/2009

Software for automated applications provisioning, configuration, metering, and control across physical and virtual infrastructure. VICE PRESIDENT OF ENGINEERING

- Grew high-quality engineering team from 5 to 25 by concentrating recruitment efforts on top performers.
- Drove FabricServer product from initial release through multiple production releases, earning selection by Network World as one of "10 Best Next-Generation Datacenter Products."
- Evolved Studio product from proof-of-concept to full product release, incorporating multiple rounds of customer feedback.

Early career: Avaki Corporation—Director Engineering; Retrieve-It, LLC—VP Development; domania.com—VP Engineering; NetGenesis Corporation—Director Engineering; D.E. Shaw Financial Technology LP—Senior Technical Coordinator; ON Technology Corporation—Engineering Manager/Software Architect; Object Design—Member of Technical Staff; Kendall Square Research—Software Engineer.

- Set up and ran Boston office, hired core QA and engineering teams, and led 7-person Budapest software team (Retrieve-It).
- Led effort to improve and retool Domania.com, leading to site being named a "Top 50 Financial Web Site" by Money magazine.
- Drove scalability for distributed, object-oriented, group-scheduling product, resulting in 350% capacity increase (ON).

TEACHING EXPERIENCE & CERTIFICATIONS

HARVARD UNIVERSITY EXTENSION SCHOOL, Cambridge, MA • 2009–2013 **HEAD TEACHING FELLOW,** Java for Distributed Computing (CSCIE160)

Professional Scrum Foundations, Professional Scrum Product Owner, Professional Scrum with Kanban–Scrum.org Certified ScrumMaster (CSM), Certified Scrum Product Owner (CSPO)–Scrum Alliance