Philip O'Toole

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I am an experienced Software Engineering Leader and Technical Expert with a strong track record of delivering high-quality software systems and engineering leadership both at early-stage startups as well as large software firms. I possess significant expertise in distributed systems, cloud infrastructure, and database design. As the creator of popular open-source software I bring both strategic vision and technical depth to projects. My combined experience in engineering management and technical implementation equips me with a deep understanding of the industry, along with a strong business and practical focus.

CORE COMPETENCIES

Engineering Leadership: Organizational management, strategic planning, change management, roadmap development, cross-functional collaboration, mentoring.

Technical Expertise: Distributed systems, cloud computing, database design, search and analytics systems, system software development. Go, C, C++, Python, SQL.

INDUSTRY LEADERSHIP

Open-source:

- **Creator of rqlite**, the distributed SQLite database built on the Raft consensus protocol. Designed for fault tolerance and high availability; used in production by organizations worldwide, 17k+ GitHub stars, and over 2 million Docker downloads.
- **Community Engagement**: Actively engage with the open-source community to foster collaboration and innovation, managing resources and infrastructure to support project growth.

Professional Outreach:

- **Conference appearances**: Speaker at major industry conferences including Google Cloud Next, GopherCon, Monitorama, DevOpsDays, and AWS re:invent.
- **Teaching**: Contributor to technical blogs (including for Google), publications, and industry podcasts, sharing insights and best practices in software engineering and distributed systems. Presented at various Meetups such as San Francisco Go and San Francisco Elasticsearch.
- **Books:** Official reviewer of technical publications including *ElasticSearch Cookbook, Second Edition* and *Implementing Cloud Design Patterns for AWS*.

EXPERIENCE

Google, Pittsburgh, PA 2018 – present, Engineering Manager

- Leading multiple development teams focused on designing and developing *GCP Cloud Observability*, the Observability system for GCP. My organization owns large scale data ingestion and routing pipelines, and I have led the organization through rapid growth in data volumes. I also contribute to a larger corporate push to capture enterprise clients.
- Responsible for roadmap, vision, planning, team growth, and developing the managers and engineers within those teams. Ultimately accountable for successful execution by those teams.
- I also led the effort to make GCP's Logging product ready for government and highly-regulated industries, delivering FedRAMP and ITAR certification.
- Led the teams that delivered Google Cloud's support for *OpenTelemetry* ingestion, moving Google Cloud to standards-based protocols, unlocking its adoption by major customers.

Percolate, San Francisco, CA 2016 – 2018, Director of Data Platform Engineering

- Managed and grew distributed teams of developers responsible for customer-facing analytics, external integrations, and data ingestion, for the Percolate SaaS platform.
- Led the team that built Percolate's next-generation Analytics, which launched in early 2017.
- Responsible for roadmaps, technical design, execution, hiring, as well as working closely with Product Management and the Executive team.
- The technologies in use by the Platform teams included Python, Go, Apache Kafka, Elasticsearch, Django, relational databases such PostgreSQL and MySQL, Docker, AWS EC2, and Dynamo DB.

InfluxData, San Francisco, CA 2014 – 2016, Director of Engineering

- Core member of the InfluxDB development team, a distributed time-series database.
- Development of data ingestion, distributed consensus system, and query engine. Drove design, testing, and ensured the development team was impactful, and that our hiring was effective.
- Significant contributions to the 0.8 & 0.9 releases, and the high-performance TSM storage engine.

Jut Inc., San Francisco, CA Jan. 2014 – Nov. 2014, Senior Engineer

- Developer of Jut's Big Data analytics solutions. Full stack node.js development, within an Agile-Scrum process. Drove backend development of the Account & Deployment management application, including design and development of a PostgreSQL-based deployment.

Loggly Inc., San Francisco, CA 2012 – 2014, Lead Backend Architect

- Technical Lead of the software infrastructure team that designed and developed Loggly's 2nd Generation Cloud-based multi-tenant Log analytics SaaS platform, with real-time indexing and search. Responsible for an overall coherent design, implementation, scaling, quality, bug tracking, and prioritization. Reporting directly to the CTO, I worked closely with Product Management and was closely involved with hiring as the team grew to 5 developers. System went live Sep. 2013.
- Designed and developed the Edge Data Collectors and core data pipeline code, involving work in Java, C++, Clojure, and Python, and built on Apache Kafka, Apache Storm, and Elasticsearch.

Riverbed Technology Inc., San Francisco, CA 2007 – 2012, Senior Engineer and Eng. Manager

- Managed the design and development of the Riverbed Cloud Portal, an Enterprise-grade web Portal hosted in the AWS Cloud. The Portal allows Riverbed customers to provision, manage, and license their virtual Riverbed network appliances, and Steelhead Cloud Accelerator Services, in multiple different public and private Clouds. Developed using Python and the Django web framework. The Portal first went live in November 2010.
- One of the lead developers of the Steelhead Cloud Accelerator, a distributed system developed jointly with Akamai, which significantly optimizes network access to multiple SaaS platforms. Cloud Steelhead was released November 2010, and the Cloud Accelerator was released February 2012.
- Member of the team that developed the Riverbed Services Platform (RSP). RSP allows Riverbed's customers to run virtual machines on their Steelhead appliances. Launched in 2008.

TiVo Inc., Alviso, CA 2004 – 2007, Member of the Technical Staff

Skystream Networks Inc., Sunnyvale, CA 2000 – 2004, Embedded Software Engineer

Nortel Networks, Galway, Ireland 1997 – 2000, Software Engineer

EDUCATION 1993 – 1997, National University of Ireland, Galway, Ireland

- B.Sc. in Applied Physics and Electronics - graduated summa cum laude.