

# Doug Black

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## PROFILE

Articulate, enthusiastic lead engineer with strong experience in system architecture, data infrastructure, and platform engineering. Passionate about building tools, teams, and systems to increase resiliency and productivity.

## EDUCATION

**Georgia Institute of Technology**

B.S. Computer Science

August 2009—May 2013

## SKILLS

Languages: Python, Java, Ruby, Scala, Go, Elixir, SQL, Javascript

Platforms: Amazon Web Services, Google Cloud Platform, \*nix

## EXPERIENCE

### Stripe

**Senior Software Engineer**

*Recurring Billing Team*

Denver, CO

September 2021—June 2023

- Led design and implementation for many improvements to Stripe's recurring billing product. These improvements were part of a successful larger effort to add support for a customer large enough that it would more than triple existing revenue of the recurring billing product suite.
- Actively advocated for more efficient team processes to increase team productivity and aid prioritization. Mentored multiple junior engineers, conducted many interviews and invested in enhancements to interview processes.
- Implemented on-call improvements as the billing org grew that ensured the on-call rotation remained responsive and low overhead—driving down incident response time.

### Discord

**Senior Software Engineer**

*Data Platform Team*

San Francisco, CA and Denver, CO

December 2017—January 2021

- First senior engineer hired to the team, responsible for scaling up and enhancing Discord's ability to ingest, store, and analyze 30MM+ events per second used to monitor key app metrics.
- Designed and shipped a data aliasing system written in Scala that allowed Discord to reach GDPR data privacy compliance in just four months. This system was in the real-time path of event ingestion— instantly becoming one of the most critical systems at the company—and the migration was a success,

resulting in zero data platform downtime.

- Led a project to take ownership of, and add enhancements to, a core identity system at the company written in Elixir. This system had not only become crucial to the data platform, but was a critical real time identity system for almost all Discord traffic. The ownership transfer and new features were successful.
- Reviewed and added several platform technologies that greatly improved developer productivity (like Bazel and Terraform) to our team that later became standard technologies for all engineering teams at the company.
- Designed and shipped a data ingestion service in Python that ingested vast amounts of data to the platform for analysis. It pulled from several different types of databases, including Cassandra, ScyllaDB, Postgres, and TokuMX and scaled as Discord grew from 30MM to 140MM+ users.
- Designed and shipped a real-time monitoring sidecar process written in Go that was used to monitor for stale or misbehaving jobs.
- Mentored junior engineers and conducted close to one hundred technical interviews. Constantly advocated for team process improvements and heavily contributed to prioritization. Architected the team's on-call and incident response runbooks. One of the first employees to pioneer remote work (pre-pandemic) at the company.

**Twilio**  
**Lead Software Engineer**  
*API Team*

San Francisco, CA  
June 2013—December, 2017

- Led a team of four engineers, responsible for the scalability and uptime of Twilio's REST API proxy. Scaled the Twilio API to 3B requests/week while maintaining 100% uptime and 99.999% success rate.
- Designed and built continuous delivery for the API proxy. This increased the API deployment frequency from two deployments a week to multiple deployments every day and reduced the time required to expose new APIs from multiple weeks to several hours.
- Led sprint planning, sprint retrospectives, and quarterly roadmap planning. Handled prioritization, customer escalation, and worked with engineering and product leaders daily to orchestrate successful product ships. Mentored team members and taught engineering best practices.
- Introduced request tracing to Twilio, which drastically simplified service debugging and incident response and empowered customer support teams to have more meaningful engagements with customers.
- Designed and built Twilio's next-generation deployments system, which quickly gained wide adoption and became the primary way to deploy hundreds of different microservices across the company.
- Created service to automatically identify and de-provision unused infrastructure. To date, this service has saved Twilio over \$500k in cloud computing costs.