

Doug Black

919-740-4420
doug@doublack.io
doublack.io
github.com/doublack

PROFILE

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

EXPERIENCE

Technical Lead, Twilio

San Francisco, CA — October 2016—Present

API Team

- Led a team of four full-time engineers, responsible for the scalability and uptime of Twilio's REST API proxy. Scaled the Twilio API to ~3B requests/week while maintaining 100% availability and a 99.999% success rate.
- Designed and built Public API Platform, which enabled product teams across Twilio to design and ship new APIs on their own, removing the need for API engineer involvement. 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.
- Delivered autogenerated versions of all six Twilio helper libraries (SDKs) which reduced helper library maintenance overhead from multiple days to less than one hour each sprint.
- 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.

Senior Software Engineer, Twilio

San Francisco, CA — December 2015—October 2016

API Team

- Extensive reliability and scalability improvements to Twilio's REST API, including migration from PHP monolith to distributed systems architecture federated by a Python proxy service.
- 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.
- Built and maintained the Platform API, a set of systems and APIs through which Twilio deployments are orchestrated and configuration is managed. The Platform API solved many issues with existing deployment infrastructure and sharply increased deployment frequency and company-wide satisfaction with the platform.
- Ran engineering-wide sprint demos, encouraged engineers from all teams and experience levels to share their work with others.

Software Engineer, Twilio

San Francisco, CA — June 2013—December 2015

API Team

- Responsible for exposing new Twilio APIs and adding various enhancements to the Twilio REST API and Twilio helper libraries.
- Created command line tool that automated many different parts of everyday Twilio developer life. Individual functions are modeled as subcommands, creating an extensible tool which has since been enhanced by over 100 different contributors. The tool enjoys 100% adoption and is used daily by every engineer at Twilio and is even a crucial part of incident response.
- Created service to automatically identify and de-provision unused infrastructure. To date, this service has saved Twilio over \$500k in cloud computing costs.

EDUCATION**Georgia Institute of Technology**

Atlanta, GA — August 2009 - May 2013

B.S. Computer Science

SKILLSProgramming Languages: **Python**, Java, PHP, Ruby, SQL

Tooling/Platforms: Git(hub), AWS, Chef, Jenkins, Linux (Debian/Ubuntu; CentOS)