Robert J. Williams III (NYC Metro Area) **Website:** robwilliams.me | **Github:** robwil | **Email:** contact@robwilliams.me

TECHNICAL SKILLS: (listed in order of proficiency and recency; all have been used in production projects)
- Languages: Golang, PHP, Java, Javascript (React, Node, Angular), Ruby/Rails, Python, C++, C#, Perl
- Databases: SQL (including BigQuery), Bigtable, Redis, MongoDB
- Infrastructure: Docker, Kubernetes, Helm, Ansible, GCP Deployment Manager, AWS, GCP, Cloud VPC/VPN

EXPERIENCE:

BounceX, New York, NY   October 2017 – Present
Principal Engineer, Core Services and Data
- Main technologies: Golang, PHP, Docker, Kubernetes/Helm, MySQL, BigQuery, Bigtable, Pub/Sub, Redis, AWS, GCP
- Co-led the architecture and implementation of a greenfield segmentation engine using a hybrid Bigtable + SQL data backend, handling near real-time segment membership changes based on incoming events as well as time decay. Horizontally scalable and tested up to 500k events/sec.
- Key contributor to event stream components including ingestion, routing, backups, and consumers serving 75k events/sec.
- Led the architecture and implementation of a globally deployed asset router that allows swapping out infinitely-cached static assets within seconds based on user, website, or other arbitrary rule sets.
- Led various stability initiatives to reduce downtime of monolithic legacy systems and databases, including PHP 7 upgrade, overhauling caching strategies (APCu + Memcached with mcRouter), and new deploy scripts.
- Planned and executed successful zero downtime application migrations from Rackspace to AWS and from AWS to GCP.
- Implemented a script framework to handle large-scale SQL and BigQuery deletions in response to GDPR requests requiring scanning of 500TB+ of data.

Sailthru, New York, NY   May 2014 – October 2017
Principal Site Reliability Engineer
- Main technologies: Java, PHP, React/Redux, Angular, MongoDB, Docker, Ansible
- Top contributor on a strategic SRE team working directly with CTO and head of product to address quality and stability problems across the full system. From tcpdump deep dives to client-side validation, the team worked on whatever would improve stability.
- Rewrote all the core backend systems (campaign mailing system [bit.ly/2EM97zB blog post], link rewriting, client job priority queue, nightly batch operations) into distributed Java services, with 10-100x performance improvements, consistently reaching 99.99% stability.
- Led architecture, design, and implementation of full-stack product overhaul of the segment ("audience") query builder, working directly with Head of UX to develop a component-based React/Redux UI powered while also refactoring backend Java/Mongo query logic to improve speed and functional capabilities (e.g. infinite nesting of AND/OR, flexible time range queries).
- Applied Google SRE methodologies to ensure all important services had granular log aggregation, metrics, and dashboards. Iterated on a monthly basis to tackle noisiest alerts, creating self-repairing systems that rarely woke up the team.
- Part of top-level production on-call rotation, leading many high-stakes incident response efforts and investigations.

Freelancing for a startup and international non-profit organization   June 2013 – November 2014
Software Engineer, Consultant
- Inherited a large Rails/Angular code base for a social networking startup. Added aggressive caching, conditional GET support, and frontend tests to get the app ready for launch, then provided maintenance and additional performance improvements.
- Worked with stakeholders to gather requirements, design, and implement a full-stack web application prototype in Rails. With prototype approved, the final app was developed in Angular/Node and handled 50,000+ users with a single Heroku node.

Prior experience summary
- 2012-2013 Netsoft USA software consultant, doing full-stack Java/Spring work for an international health insurance provider. Key win was automating deployment processes, saving 2 hours per deploy.
- 2009-2011 Completed college internships at Amazon, Goldman Sachs, and Boeing mostly using C++. Key win was developing fraud detection logic that is executed during every Amazon order.

EDUCATION:

Stevens Institute of Technology, Hoboken, NJ   2008-2012
M.S. / B.S. Computer Science
- Valedictorian of undergraduate class with 3.98 undergraduate GPA, 4.0 graduate GPA, and 4.0 in Computer Science coursework
- Accelerated 4-year plan earning both master's and bachelor's degrees

U.S. Citizen, References Available Upon Request