# andrewschwartz

software engineer

#### contact

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## fav. languages

GolangPython

### fav. tech

Kubernetes
Docker
Linux
PostgreSQL
Prometheus

# languages

English native Japanese fluent

# quick stats

29 years old Golang enthusiast Kubernetes advocate Cloud native Scalable services B.S. Comp. Sci, '13  $CT \rightarrow NY \rightarrow H$   $AT \rightarrow FL$ 

# experience

Dec. 2017 -- Present

#### **IBM Cloud Databases**

Japan/USA (remote)

Senior Software Engineer

Architect and lead platform engineer of the next-gen DBaaS offering on IBM Cloud, bringing the Compose suite of databases to Kubernetes. Thought leader and advocate within the company for Kubernetes and the Controller pattern.

- Lead engineer of declarative Controller based platform for running elastic stateful services with high availability on Kubernetes
- Automated management of workers within Kubernetes clusters by improving utilization and reducing overhead, leading to a 30% decrease in hardware costs
- Architected system to create on-demand isolated environments within a cluster using a shared worker pool and custom worker scheduler
- Represent IBM Cloud Databases as architect at compliance audits (SOC, PCI, etc), ensuring systems are well understood and compliant
- On the front-line and on-call, performing SRE duties to triage and remediate issues with Kubernetes workers, Linux OS, and database instances
- Introduced LUKS encryption using a cloud KMS w/ BYOK and in-place expansion of iSCSI volumes through a custom flexvolume driver
- Implemented elastic zero-downtime vertical scaling for databases on Kubernetes

Oct. 2015 -- Dec. 2017

### Compose.io (acquired by IBM)

Japan/USA (remote)

Platform Engineer

Engineer on the team building the platform to orchestrate hundreds of thousands of stateful containers running Compose's suite of databases (PostgreSQL, etcd, Redis, MongoDB, RabbitMQ, and more) on a variety of public and private cloud environments.

- Built out new etcd3 and ScyllaDB services on Compose, used to back several key internal services on IBM Cloud, tested in Travis CI, built into container.
- Refactored and maintained open source Transporter ETL tool, made available as a
  free service to easily load data from external databases into a Compose instance,
  increasing customer acquisition

Aug. 2013 -- Oct. 2015 Gengo (acquired by Lionbridge)

Tokyo, Japan

Full Stack Software Engineer

Engineered Gengo's microservice architecture serving hundreds of millions of requests per day on AWS.

- Advocated for and redesigned monolithic PHP API to microservice Golang-based architecture, cutting average response times by 10x and reducing availability events by 90%
- Spearheaded event-driven architecture shift, providing an extensible solution for separating application and async concerns

Jun. 2012 -- Aug. 2012 GE Power & Water

Schenectady, NY

Software Engineer Intern

Collaborated on improvements to a Java application to a multi-million dollar software suite modeling electrical grids and presented new features to clients

# interests

**professional:** golang, kubernetes, operators / controllers, SaaS, DBaaS, software architecture, availability, scalability, metrics **personal:** tennis, HN, japan, /r/programming, travel, gaming