

# Brandon Willett

## Education

### UNIVERSITY OF ROCHESTER

- ◇ Graduated in 2018
- ◇ B.S. in Computer Science (3.82)
- ◇ B.A. in Mathematics (3.80)

## Skills

### BACKEND

- ◇ Go, Python, Java, Scala
- ◇ Message queues (Kafka, RabbitMQ)
- ◇ DAG pipelines (Airflow, Luigi)
- ◇ Transactional databases (Postgres, Cass)
- ◇ Analytical / columnar databases
- ◇ Caches (in-memory, Redis)
- ◇ Database sharding

### PLATFORM

- ◇ Version Control (git)
- ◇ CI/CD (GitHub Actions, Gitlab)
- ◇ Telemetry (Prometheus, Datadog)
- ◇ Containerization (Docker, containerd)
- ◇ Build tools (Rake, Bazel)
- ◇ Infra as code (Cloudformation, Terraform)
- ◇ Reverse proxies (nginx, HAProxy)
- ◇ Load balancers (L4, L7)
- ◇ Service Discovery (DNS, Consul, Envoy)

### CLOUD

- ◇ AWS (ALB, NLB, EC2, RDS, S3, Lambda)
- ◇ GCP (GLB, GCE, GCS, Cloud SQL)
- ◇ Azure (ALB, VMSS, ABS)
- ◇ Kubernetes (ask me about any resource)

A young New-York-based developer with experience in platform dev. Always believing that any problem can be overcome with kind communication, a good sense of humor, and just persisting everything to S3.

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## Experience

### ACTIONIQ

New York, NY

Distributed Systems Engineer

Jun 18 – Present

- ◇ Designed, advocated for, and implemented the AIQ strategy for autoscaling query execution on EC2, reducing our AWS bill by more than 50%
- ◇ Drove scalability improvement to the open-source job scheduling platform Luigi, and contributed some of that back upstream
- ◇ Maintained the Prometheus cluster (later, DataDog) and led internal talks and workshops on best practices around metrics & observability
- ◇ Enabled dynamic configuration and artifact discovery (Ansible, Consul)
- ◇ Brought some of the first Terraform modules to AIQ, used them to build the first version of our streaming ingest platform using IaC

### EDU.CHAT

New York, NY

Software Engineering Intern

Jun 17 – Aug 17

- ◇ Worked closely with a team of three other engineers, using JIRA and Git, to create a chat bot which classified and answered student questions
- ◇ Developed, refined, tested and integrated the new NLP question-matching model with the overall Edu.Chat platform
- ◇ Learned Python implementations for message passing, parallelization and task queue systems to distribute the workload (like Celery and Redis)

### UR CHEMICAL ENGINEERING DEPT

Rochester, NY

Research Assistant

Sep 16 – May 18

- ◇ Created and iterated upon a web app with rapidly-changing requirements, performing Markov chain statistic analyses on time-series datasets
- ◇ Hosted on EC2, using Flask with NumPy and Pandas for data visualization

### UR EVENT & CLASSROOM MANAGEMENT

Rochester, NY

Student Supervisor

Sep 14 – May 18

- ◇ Trained, managed, and communicated with the large student staff
- ◇ Created and self-hosted several small web-based tools to help students log and visualize phone call data – these are still in use now