Brandon Willett

A young New-York-based developer with big data platform experience.
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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Education

UNIVERSITY OF ROCHESTER

- B.S. in Computer Science – 3.82
- B.A. in Mathematics – 3.80
- Graduated in 2018 – Magna Cum Laude
- Achieved Dean's List every semester

RELEVANT COURSEWORK

- Data Structures (+ TA two semesters)
- Language Design & Implementation (+ TA)
- Analysis of Efficient Algorithms (+ TA)
- Limits of Computation (+ TA)
- Parallel and Distributed Systems
- Advanced Algorithms
- Computational Complexity

Skills

PROFICIENT

- Java, Scala, & Python (2.7 and 3+)
- Distributed query execution (e.g. Spark)
- DAG-based job scheduling (Luigi, Airflow)
- Bash, Git, and Unix dev tooling
- AWS (EC2, S3, CF, Lambda) and Docker
- Logs, metrics, and trace aggregation
- Agile and Kanban project management

SOME EXPERIENCE

- Streaming frameworks (e.g. Kafka)
- Concurrency algorithms & primitives
- Java (OOP) design patterns
- Unit & integration testing frameworks

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 nearly 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