

CHRISTOPHER J. BURESCH

Preferred Name: Cj ◇ he/him ◇ Senior Software Engineer ◇ Seattle, WA

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OBJECTIVE

Seeking to join a team focusing on product backend, platform, or infrastructure development. I enjoy providing massively distributed, highly available and fault-tolerant services to internal customers and working on every part of it from the metal up.

SKILLS

Proficient Languages: Scala, Java, Python, C#

Relevant Experience: Scalding / Hadoop MapReduce, HDFS, Airflow, Docker, K8s, Azure/GCP/AWS, gRPC/thrift/protobuf, Bazel, Puppet, Terraform

Learning Languages: Rust, Go

EXPERIENCE

Senior Software Engineer

Sept 2022 - Nov 2022

Blobstore (Distributed BLOB Storage), Twitter, Inc.

Seattle, WA

- Designed and implemented a new chargeback model and service for Blobstore which gave customers a more granular and accurate understanding of their app use-case over time.
- Wrote a new compliance service which would cut user access or delete out-of-compliance datasets based on signals from the InfoSec or Legal team.
- Maintained anti-entropy services and tooling, processed large datasets in multi-step pipelines to handle

Site Reliability Engineer II — Software Engineer II

Dec 2018 - Sept 2022

Blobstore (Distributed BLOB Storage), Twitter, Inc.

Seattle, WA

- Designed and built a topology-aware cluster locking service to ensure automation and deploys could operate in parallel without affecting service health. This unlocked other opportunities like automated deployments, which increased release cadence from monthly to weekly.
- Wrote compliance automation for kernel and firmware updates using Airflow as an orchestration engine. Rolls 8k machines across multiple datacenters in less than 30 days with no manual intervention.
- Migrated multiple services from baremetal to Aurora (Mesos) compute clusters to ease operational burden and to improve development velocity.
- Responsible for service monitoring and tooling, system health, system config, load testing, capacity planning and oncall.

EXPERIENCE

Twitter, Inc. - Senior Software Engineer

Dec 2018 - Nov 2022

Blobstore (Distributed Object Storage),

Seattle, WA

As a team of 8 we stored 70PB of Twitter's public and private data in an on-prem multi-tenant multi-datacenter distributed key-value system. During my time on the team I owned the hardware health, all service automation, monitoring, tooling and deployments as well as custodial services and processes along with feature work.

Selected Accomplishments

- Developed a chargeback model and automation to give customers daily resource cost across network and api usage, storage class, data locality and replication factor. This was an improvement over the previous manual process which only accounted for storage on disk on a quarterly interval.

- Developed a topology-aware locking service to ensure operational actors could operate independently safely without affecting service health. This presented opportunities like no-touch deployments and hardware lifecycle automation that removed weeks of developer operation toil, reduced pages by a magnitude, and increased deployments from monthly to weekly for our stateful backend.
- Developed compliance automation for kernel and firmware updates using Airflow as an orchestration engine. Rolls 8k machines across multiple datacenters in less than 30 days with no manual intervention and negligible service impact. As a result Blobstore was consistently in the top 5 of patched fleets across the company.
- Developed anti-entropy services and tooling to process large metadata dumps (billions of keys) to multi-instance workers to ensure data integrity.
- Migrated multiple services from baremetal to Aurora Mesos compute clusters to ease operational burden, improve developer velocity and service reliability as well as cut 6-figures from annual COGS.
- Maintained service monitoring and tooling, system health, system config, loadtesting, capacity planning and oncall.

Microsoft Corporation - Software Engineer
Dynamics

Aug 2015 - Nov 2018
Seattle, WA

Worked remote to a small Switzerland-based follow-the-sun cloud infrastructure team tasked with managing the operational health of a Microsoft Social Engagement product's backend and various Elasticsearch clusters. Later switched to a backend product team developing an account management api for Dynamics CRM.

EDUCATION

Bachelor of Science, Computer Science
Gonzaga University

2011 - 2015
Spokane, WA

Clubs and Activities

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|-----------------------|---------|---------------|----------------|
| Men's Rowing, Div. 1 | 2011-12 | ACM ICPC, PNW | 2012, '13, '14 |
| Computer Science Club | 2012-15 | Math Club | 2013-15 |
| Cycling Club | 2013-15 | WSU Hackathon | 2015 |

Achievements

3rd On-Site, ACM ICPC (PNW) 2013, 2014

LEADERSHIP

- Mentored new grads and interns with weekly 1:1's and adhoc sessions to help them ramp up into Twitter Engineering!
- Ambassador for Twitter Seattle 2021-2022. Responsible for planning events, creating opportunities for colleagues to socialize, assisting onsite operations management.

EXTRA-CURRICULAR ACTIVITIES

- Avid Mountain Climber! Summited Mt. Baker, Mt. Shuksan, and Mt. Hood.
- 3d Printing enthusiast! I solve my everyday problems with plastic.
- I play tabletop, RPG and video games!