

Carly de Frondeville

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Experience

BACKEND SOFTWARE ENGINEER, PINGTHINGS

AUG 2020 - MAR 2023

- Owner of our internal compression code. Applied research from several national labs to improve on Facebook's Gorilla compression algorithm. Improved compression by 1.5x over the state of the art (2.8x better than unmodified Gorilla)
- Designed and implemented data store architecture to enable federated multi-stream reads by removing the need for a centralized request coordinator; enabled high throughput metric aggregation and anomaly detection, increased scale, and reduced the failure blast radius
- Took over, fixed, and maintained Ceph / S3 tiered storage, reducing cost per byte by 4x
- Prevented customer data loss by testing and deploying a tool for failover to S3
- Worked with DevOps team to port our backup automation tooling from AWS to Azure
- Created a modular framework for ingesting time series data from external APIs
- Managed intern; created first official process and onboarding materials for managing interns and assembled detailed feedback from coworkers for an educational retro meeting

BACKEND SOFTWARE ENGINEER INTERN, PINGTHINGS

JUN 2020 - AUG 2020

- Created and owned deny-by-default network security for multi-tenant multi-node clusters

SOFTWARE ENGINEER, IRL

JAN 2020 - MAY 2020

- Implemented bug fixes that corrected how 10k events were stored in our database
- Used the Ticketmaster PHP API to poll and insert events into MySQL database

ACADEMIC INTERN, CS61B

SUMMER 2019

- Assisted students with data structures assignments at two lab sections per week

TECHNOLOGY DIRECTOR, ASUC OFFICE OF SYLVIA TARG

FALL 2019 - SPRING 2020

- Directed a team of 5 people in compiling a tagged database of environmental organizations
- Created a webpage with a database of environmental courses linked to a database of reviews

DIRECTOR OF CLIMATE ACTION, ASUC OFFICE OF ANNA WHITNEY

FALL 2019 - SPRING 2020

- Led a 7-person team to advocate for decarbonizing the on-campus micro-grid
- Co-wrote MOU committing UC Berkeley to use 100% renewable energy by 2050
- Prepared my team to meet with and lobby key administrators and to sign the MOU

Education

UNIVERSITY OF CALIFORNIA, BERKELEY

GRADUATED AUG 2021

- B.A. Computer Science
- Minor in Bioengineering
- Relevant Coursework: Intro to Database Systems, Discrete Mathematics and Probability Theory, Operating Systems and Systems Programming, Intro to Electric Power Systems, Designing Visualizing and Understanding Deep Neural Networks

Skills

Go, Python, Java, C, SQL, Kubernetes, AWS, Azure, GRPC, PHP, Pandas, PyTorch, Ray, Scheme