RIDWAN SHARIF

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SKILLS

· Experienced with Go, C, C++, Ruby, Rails, Python, SQL, Elixir, Docker, Redis, Memcached
· Interested in databases, distributed systems, systems design, infrastructure and security

WORK EXPERIENCE

Shopify, Inc.   Jan – Apr '18
Production Engineering Intern (Infrastructure)   *Ottawa, ON*

· Led multiple design reviews outlining measures to improve observability standards across Shopify
· Redesigned core components of Shopify's incident response system to incorporate reporting mechanisms, introspection, and severity escalations – featured in SREcon and in Shopify's engineering blog
· Developed a streamlined workflow from error detection, failure mitigation, to postmortem publication
· Built cluster/service health protocols to add instrumentation across all Shopify services, to define and track SLOs, and measure uptime, throughput, and error rates

NCR Corporation   May – Aug '17
System Software Engineering Intern (Infrastructure)   *Waterloo, ON*

· Designed a NIST compliant password manager to manage private credentials for multiple teams
· Used throughout the infrastructure division across multiple teams, saving ~18,000 USD annually.
· Shouldered an operational role with cluster maintenance, ACL management, and malware protection

RESEARCH

uWaterloo Database Systems Group   May – Aug '18
Undergraduate Researcher   *Waterloo, ON*

· Researching main-memory, "compiling" databases that use dynamic code-generation techniques as part of its query execution model
· Studying query optimization, code synthesis, and transaction compilation with Prof. Grant Weddell

PROJECTS

raft   *git.io/v59cj*

· Implemented Raft, a fault tolerant and performant distributed consensus algorithm resilient to lossy networks, network partitions and node failures – based on Diego Ongaro's thesis paper
· Designed log truncations, replications, snapshots, and leader elections to manage replicated states
· Used protocol buffers with gRPC for the underlying RPC subsystem, implemented entirely in Go

mqueue   *git.io/vMKXe*

· Constructed an in-memory Kafka-esque message broker in Go over an HTTP API
· Designed a concurrent, thread-safe publisher/subscriber architecture with multiple topics

Other notable projects: **lispy**, **gcache**, **go-workerpool**, **pRSA**, **fzysearch**, **airport**

EDUCATION

University of Waterloo   Sept '16 – Apr '21 *(expected)*
Bachelors of Computer Science, Honours

· UW Robotics Club, Hack the North (2017, 2016), President's Scholarship (95th percentile)