

Yoav Arbiv

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Technical Skills

Languages: Go, Python, SQL, C, C++, TypeScript, JavaScript, Rust

Technologies: MySQL, Thrift, Redis, Kafka, Elasticsearch, WebSocket, MongoDB

Frameworks & Libraries: React, Node.js, Django, Flask, pandas, NumPy, Matplotlib

Tools: Kibana, Grafana, Git, Postman, Unix, FlameGraph, Docker

Experience

ByteDance

July 2022 – Present

Software Engineer

San Jose, CA

- Delivered features to improve TikTok LIVE stability for millions of users worldwide
- Designed and built a service to detect capacity issues at video CDN nodes and redistribute traffic across CDNs, **increasing effective viewership capacity by up to 15%** at peak hours
- Implemented systems to automatically detect CDN QoS drops and reschedule traffic to nodes with better performance, **mitigating 50+ incidents within minutes** to date
- Redesigned a complex cross-team distributed system to reduce technical debt and improve performance
- Owned and drove several critical governmental compliance projects requiring extensive refactors
- Acted as subteam scrum leader for four developers over 20+ sprints, coordinating project work with the PM
- Provided oncall support for 10 TikTok LIVE services, identifying and resolving long-standing bugs

Intel

Jan 2021 – Apr 2021, Sept 2021 – Dec 2021

SoC Design Engineer

Toronto, ON

- Modelled Intel memory controller IP using SystemC to enable rapid microarchitectural iteration
- Designed an algorithm to optimize individual silicon voltages, **improving power & delay metrics by up to 15%**
- Developed an internal tool to tune SoC voltages and evaluate cost functions for FPGA binning

A Thinking Ape

Jan 2020 – Apr 2020

Backend Engineer

Vancouver, BC

- Re-architected WebSocket use, improving response time and **decreasing worst-case API load by 66%**
- Profiled and load-tested critical endpoints using FlameGraph and Locust, **optimizing by >100ms**
- Developed a data aggregation job to produce automated reports on key metrics (revenue, DAU, etc.)
- Automated in-game shop events to reduce developer maintenance hours on legacy titles

D2L

May 2019 – Apr 2019

Fullstack Engineer

Toronto, ON

- Delivered an e-learning platform MVP to view and annotate coursework using React, Express, and Flask
- Developed an NLP tool to generate questions from course material

Google (formerly North)

Sept 2018 – Dec 2018

Software Engineer

Kitchener, ON

- Developed features and resolved critical bugs for an Android-based smart glasses platform

Projects

RISC-V CPU Emulator | Python, Verilog

- Designed a single-core pipelined CPU which implements the RISC-V ISA in Verilog
- Developed a Python testbench using binaries to verify functionality by checking simulated memory

Education

University of Waterloo

Waterloo, ON

BASc, Honours Computer Engineering

Sept 2017 – April 2022