

# Yoav Arbiv

🌐 [yoavarbiv.com](http://yoavarbiv.com) | ✉ [yoav.arbiv@gmail.com](mailto:yoav.arbiv@gmail.com) | in [linkedin.com/in/yarbiv](https://www.linkedin.com/in/yarbiv) | ☎ +1 (415) 832-9511

## Technical Skills

---

**Languages:** Go, Python, SQL, C, C++, TypeScript, JavaScript, Rust, Verilog, SystemC

**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*