

# Wayne Zhu

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## Skills

**Backend** Python, Java/Kotlin, Node.js, Go, RESTful APIs, GRPC, SQL, Docker, Kubernetes, CI/CD, AWS, Google Cloud  
**Frontend** Python, Java/Kotlin, C/C++, Javascript/Typescript, React/React Native, HTML/CSS

## Work Experience

### DoorDash

Toronto, ON

#### SOFTWARE ENGINEER INTERN

May 2023 - Present

- Currently working with the Merchant Finance Platform team to create a new simplified transaction reporting platform in Kotlin, creating a new streaming workflow with Cadence and Kafka, and aggregating order data with Snowflake and Apache Pinot.
- Created a full stack end-to-end solution encompassing the development of new GRPC API endpoints, crafting a customized frontend with React and Typescript, and deploying the solution using Docker and Kubernetes.

### Intel

San Jose, CA

#### SOFTWARE ENGINEER INTERN

September 2022 - April 2023

- Agile full-stack development in Java for the Quartus Prime FPGA design software, successfully integrating 15+ new features while resolving critical bugs within the Platform Designer system integration tool.
- Contributed to the analysis and optimization of build cache utilization, resulting in a 3s acceleration in FPGA subsystem generation.
- Implemented an automated mechanism for identifying user-modified files to safeguard against accidental overwrites.

### Meta

Menlo Park, CA

#### SOFTWARE ENGINEER INTERN

May 2022 - August 2022

- Created a new automated load test routine using Python to find a service's peak traffic throughput by raising it into a maximally stressed but healthy state, ultimately identifying and storing high-accuracy data on the service's ideal load and operating conditions.
- Wrote a new CLI to automatically onboard internal services to this new peak load testing system, generating adhoc generic configurations for previously unregistered services, achieving out of the box compatibility with all targeted groups of services.
- Rolled out to 160 internal services, covering over 1 million server instances.

### EQ Works

Toronto, ON

#### SOFTWARE DEVELOPER INTERN

May 2021 - August 2021

- Created automated workflows using Python, Airflow, Docker, and Kubernetes to retrieve, process, and upload data segments to Google Cloud Storage upon receiving job requests from clients, resulting in an 80% reduction in processing time.
- Authored a bespoke backend using Node.js, AWS Lambda, AWS S3, and PostgreSQL, creating a system to queue and execute tasks requiring large streams of data, optimizing user experience by shifting computationally-expensive functions away from the client.

## Extracurricular Activities

### University of Toronto - Department of Computer Science

Toronto, ON

#### TEACHING ASSISTANT - CSC148 INTRODUCTION TO COMPUTER SCIENCE

January 2022 - April 2022

- Provided classroom support during lectures, operated office hours, and graded exams for an introductory Python course.

### Neurotech UofT

Toronto, ON

#### WEB DEVELOPER

February 2020 - April 2020

- Wrote a React-based documentation website for the Neurostack API, a cloud brain wave streaming framework.

## Projects

### Private Cloud

#### SELF-HOSTED CLOUD STORAGE SOLUTION

- A Dropbox-style cloud storage app built from scratch
- React frontend, Node.js + MongoDB backend, cloud hosted
- Created a full REST API, with auth supporting multiple users

### Talk to the Hand

#### REAL TIME SIGN LANGUAGE TRANSLATOR

- Video call app using ML to show live captions for sign language
- Frontend made with React, TensorFlow.js
- Peer-to-Peer client communication through WebRTC

## Education

### University of Toronto

Toronto, ON

#### B.S. IN COMPUTER SCIENCE

September 2019 - Current

Relevant Courses: CSC369 Operating Systems - CSC373 Algorithms Design & Analysis - CSC324 Principles of Programming Languages - CSC263 Data Structures - CSC209 Software Tools and System Programming - CSC207 Software Design