# **Ethan Zohar**

## 3A Software Engineering / Avid Rock Climber

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### **Technical Skills**

**Programing Languages:** Java, C++, Python, JavaScript **Frameworks:** Apache Flink, Springboot, Node.js, React,

Flask, Thymeleaf

Databases: PostgreSQL, MongoDB, MySQL

Architectures: REST, Socket Connections, WebRTC, JDBC

### Education

University of Waterloo Sept. 2018 - April 2023 Candidate BASc in Software Engineering

85% Cumulative GPA

89.33% GPA in CS related courses

# **Industry Experience**

D2L - Software Developer

Sept. 2020 - Present

- Created a **web browser extension** that injects a **live chat** and content specific help to each individual D2L Brightspace enabled page through the use of **Socket.io** and **D2L's API**
- Redesigning a **React** application to better enable individual teachers to effectively use the platform

### Mindbridge Ai - Data Engineer & Pipeline Developer

Sept. 2019 - Dec. 2019

- Used Flink and Springboot to design algorithms and features for the financial data analytic pipeline
- Designed algorithm to predict the flow of money through different transactions and detect unusual flows
- Led database migration from **MongoDB** to **PostgreSQL** and created a new data storage and transfer standard resulting in a 40% reduction of code base size and 35% reduction of execution time
- Aggregated gigabytes worth of real time analysis results in order to reduce MongoDB query wait times

### Mindbridge Ai - Full Stack & DevOps Developer

Jan. 2019 - April 2019

- Created and deployed a **Java** CLI tool and desktop executable that sanitizes, parses, splits, and concatenates Excel and CSV files, increasing the customer success team's efficiency by 50+ hours/week
- Increased the CS team's autonomy by developing a CSM tool to manage users and check clients' job statuses. Development spanned multiple **Springboot** applications, a **Node.js** server, and a **MongoDB** client
- Implemented Azure function apps to maintain backup disks on Azure cloud storage reducing disk costs

#### Plastic Mobile - Software & Hardware Lab Intern

July 2018 - August 2018

- Designed augmented reality **Android** application in **Java** using Google **ArCore** to autonomously control a robot to drive around the office delivering coffee using iRobot's open source SDK
- Utilized ArCore image recognition to allow for the robot identify its surroundings and triangulate its position

# Personal Projects

**Spotify Public Shared Streams:** github.com/ethanzohar/Viber

April 2020 - May 2020

- Created a platform where users are able to both see what music other Spotify users are listening to in their area and join their listening party in a **synchronized** fashion
- Leveraged the **Google Maps API** to create map views where users can see others in their area and **Spotify's API** to facilitate the synchronization of music streams across multiple users.
- Employed separate **React** and **Springboot** projects for the front-end and back-end respectively.

#### Online Whiteboard Tool: whiteboards.tech

May 2020

- Created an online whiteboard collaboration tool in order to help students during the COVID-19 pandemic
- Leveraged **Firebase's Google authentication** as well as **Firestore's realtime database** in order to reduce the latency of the live updating whiteboards and to allow for a live text channel on each whiteboard

#### Live Streaming Service: screenshare.pro

July 2019 - Nov. 2019

- Online live streaming service that uses WebRTC sockets to directly stream screen capture to viewers
- Used Nainx paired with a C++ back-end deployed on an AWS EC2 instance running Ubuntu