

Tazik Shahjahan

tshahjah@uwaterloo.ca | +1 647 720 3952 | LinkedIn/TazikShahjahan | Github/Taziksh

EXPERIENCE

UWATERLOO EMBEDDED SYSTEMS GROUP | RESEARCH INTERN

June 2021 – Sep 2021

- Increased experimental **throughput by 10X** with CLI scripts to replace repetitive GUI workflows
- Replaced error-prone **manual data entry** with real-time activity logger Python leading to higher accuracy and ease of use
- Developed PXE network server to enable remote and **automated** installs of ransomware systems during COVID-19

DROPBASE | SOFTWARE ENGINEERING INTERN

Sep 2020 – Dec 2020

- Led re-architecture of Chrome extension with **10,000+ installs** at YCombinator backed startup
- Scaled app to process **20X concurrent** requests by implementing RDS proxy connection pool
- Increased app's sandbox security by reducing SQL injection risks via stricter string sanitization
- Reduced user-end **latency by 15%** by leveraging AWS Lambda's warm start to cache function calls

UNYTE HEALTH | SOFTWARE ENGINEERING INTERN

Jan 2020 – May 2020

- Refactored **SQL JOIN** heavy operations leading to a **12X reduction** in webpage load times
- Implemented **responsive UI** components such as interactive charts in React with CSS-in-JS
- Improved testing efficiency by refactoring GraphQL configuration to include snippet by default

LANGUAGES AND TOOLS

Python • JavaScript • C++ • Java • Ruby • SQL • Shell • Matlab

Git • AWS • Docker • GCP • Firebase • React • Node.js • TensorFlow • PyTorch

PROJECTS

HAYASAKA.AI

- Created cartoon art by **finetuning** StyleGAN 2 model with **Tensorflow**
- Compiled training data by filtering characters by **Euclidean distance** of image color

RECEIPT TO RECETTE

- Designed **React Native** app at Hack the 6ix 2021 with **Flexbox**, Styled System, and utility-first CSS
- Applied **deep learning** to identify ingredients from photos to track ingredient stock

MGCI ANNOUNCEMENTS

- Built Apps Script platform used by **100+ students monthly** to share announcements on schoolwide TVs
- Collaborated with admin to anticipate potential abuse and implemented measures including MIME email verification

MISC.

- An unofficial API to identify songs from lyrics made by **reverse engineering** HTTP requests
- A bot to autocomplete UWaterloo's COVID-19 checkin built with JavaScript

EDUCATION

UNIVERSITY OF WATERLOO | BAsC. COMPUTER ENGINEERING

Sep 2019 - May 2024

Data Structures & Algorithms • Systems Programming & Concurrency • Computer Architecture
Instrumentation and Prototyping • Embedded Microprocessor Systems • Digital Assembly

