

Tazik Shahjahan

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

EXPERIENCE

UW EMBEDDED SYSTEMS GROUP | RESEARCH INTERN

June 2021 – Sep 2021

- Increased experimental **throughput by 10X** with CLI scripts to replace repetitive GUI workflows
- Replaced Excel data entry with Python script for **instantaneous** timestamps of user activity
- Developed PXE boot server to enable remote and **automated** installs of OS by IT during COVID-19

DROPBASE (YCOMBINATOR) | SOFTWARE ENGINEERING INTERN

Sep 2020 – Dec 2020

- Scaled app to handle **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 10%** by leveraging AWS Lambda's warm start to cache function calls

UNYTE HEALTH | SOFTWARE ENGINEERING INTERN

Jan 2020 – May 2020

- Improved web dashboard **loading time by 10X** by refactoring SQL JOIN-heavy operations
- Implemented **responsive UI** components such as interactive charts in React with CSS-in-JS
- Increased testing efficiency by refactoring GraphQL configuration to include snippet by default

PROJECTS

RECEIPT TO RECETTE

- Built **React Native** app at Hack the 6ix to identify new groceries with OCR for parsing receipts
- Applied **deep learning** to identify ingredients from photos to track ingredient stock

HAYASAKA.AI

- Created anime character art with limited data by **finetuning** StyleGAN 2 model with **Tensorflow**
- Architected training data by filtering characters by **Euclidean distance** of image color

MGCI ANNOUNCEMENTS

- Built Apps Script platform used by **40+ student clubs** to share announcements on schoolwide TVs
- Implemented email verification with MIME to prevent abuse by aspiring student clowns

MISC.

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

LANGUAGES AND TOOLS

Python • Java • Shell • JavaScript • Matlab • C • C++ •
Git • AWS • Docker • GCP • Firebase • React • Node.js • TensorFlow • PyTorch

AWARDS AND ACTIVITIES

2021	National	Hack the 6ix
2019	1st/50	Best Paper Airplane Design, ECE 190
2019	1st/11	Best Autonomous Soil Robot, AP Physics

EDUCATION

UNIVERSITY OF WATERLOO | B.A.Sc. COMPUTER ENGINEERING

Sep 2019 - May 2024

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