

# Akshath Chaudhary

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## EDUCATION

### University of Waterloo

September 2019 – May 2024

3A, Bachelor of Computer Science

Waterloo, ON

- **CGPA:** 3.90/4.00
- **Awards:** *Dean's Honours List, Concept Entrepreneurship Funding Recipient, Intramural Soccer finalist*
- **Relevant Coursework:** *Data Structures and Data Management, Object-Oriented Software Development, Algorithm Design and Data Abstraction, Operating Systems, Combinatorics, Probability*

## TECHNICAL SKILLS

- **Languages:** C++, Python, C, Java, SQL (Postgres), JavaScript, HTML/CSS, R
- **Frameworks:** React, Node.js, Flask, OpenCV, Django, Material-UI, Vue.js, FastAPI
- **Tools:** Git, Docker, Kubernetes, VIM, GDB, GCOV/LCOV, TravisCI, Google Cloud Platform
- **Libraries:** MongoDB, NumPy, Pandas, Scikit, TensorFlow, Boost C++, Tatum

## RELEVANT EXPERIENCE

### Huawei

May 2021 – Present

Software Engineer

Markham, ON

- Improved runtime of Static Timing Analysis (STA) by **over 88%** via a conditional incremental algorithm that identifies and updates the subset of modified edges and nodes in the timing graph.
- Spearheaded development of a testing framework which increased code coverage by **120%** using **CMake** & LCOV.
- Implemented a path delay validator which estimates the minimum core point to point delay using node aggregation.

### Unite

July 2020 – August 2020

Lead Full Stack Developer

Waterloo, ON

- **Promoted** to Lead Full Stack Developer for excellent performance. Led a team that was in charge of designing, developing, testing, and documenting new and existing features for Unite's web applications.
- **Saved \$20,000** for the company by refactoring the existing codebase to exclude Google's restricted scopes. Successfully led the security assessment verification from Google with a turnover time of just 2 days.
- Decreased product delivery time from **2 days to 10 seconds** by developing and integrating a custom Node.js module that automates deployment via direct addition of the product to the user's account.

Full Stack Developer

May 2020 – June 2020

- Designed and developed a social community platform from scratch using Node.js for the company's users to come together, demo, and vote for their favourite products in a record time of **under 2 weeks**.
- Search Engine Optimized Unite's main website which resulted in a **65% increase** in daily visitors over 4 weeks.
- Optimized the existing codebase by compressing heavy content and prioritizing above the fold content which resulted in a 45% decrease in loading time and a **110% increase** in Google PageSpeed Index score.

## PROJECTS

**Taco** | *NLP, React.js, Express.js, Firestore, Python*

June 2021

- Built a speech therapy app designed to help long-term recovering COVID patients fix their speech impairment.
- Implemented a unique quantitative speech analysis algorithm using GCP NLP, Express.js, and Firestore which returns a score based on the user's confidence, clarity, and syntax. Built the frontend using React.js.
- Declared as the **overall winner** of EngHacks 2021 and received the **first prize** among 300+ participants globally.

**Safe Crowds** | *OpenCV, Pandas, Matplotlib, Scikit-learn*

January 2021

- Used YOLOv3 with OpenCV to detect people who are not adhering to social distancing guidelines.
- Implemented a perspective mapping algorithm to calculate real-time distance between objects using references.
- Created real-time hotspots by analyzing violations using K-Means Clustering to assist with contact tracing.