

Akshath Chaudhary

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EDUCATION

University of Waterloo

September 2019 – May 2024

3A, Bachelor of Computer Science; **CGPA: 3.90/4.00**

Waterloo, ON

- **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, Go, Ruby, JavaScript, HTML/CSS, R
- **Frameworks:** React, Node.js, AWS, NLP, SQL (Postgres), OpenCV, Django, Angular.js, Vue.js
- **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 **FPGA** Static Timing Analysis (STA) by **over 88%** via a conditional incremental algorithm using Boost that identifies and updates the subset of modified edges and nodes in the netlist.
- Spearheaded development of a testing framework that increased code coverage by **120%** using **CMake**.
- Implemented a path delay validator that estimates all core point to point delays 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 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 that resulted in a **65% increase** in traffic over 4 weeks.
- Optimized the existing codebase by compressing heavy content and prioritizing above the fold content that 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 impairment.
- Implemented a unique quantitative speech analysis algorithm using GCP NLP, Express.js, and Firestore that returns a score based on the user's confidence, clarity, and syntax. Built the frontend using React.
- Declared as the **overall winner** of EngHacks 2021 and secured the first prize among **300+** hackers.

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.
- Created real-time hotspots by analyzing violations using K-Means Clustering to assist contact tracing.