

# ABHINAV GUPTA

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## EDUCATION

Candidate for Bachelor of Honours Computer Science, University of Waterloo

Sep 2020 - Apr 2025

3 Academic Term Distinctions

Relevant Courses – User Interfaces, Data Structures and Management, Elementary Algorithm Design, Combinatorics

## LANGUAGES

TypeScript, JavaScript, C++, C, Kotlin, Java, SQL, Python, Swift, HTML/CSS, L<sup>A</sup>T<sub>E</sub>X

## DEVELOPER TOOLS

React, Angular, NodeJS, MongoDB, PostgreSQL, OracleDB, Elastic Search, AWS, GCP, DBeaver, Studio3T, Express, Flask, Heroku, TailwindCSS, Redux, Meteor Framework, Robot Framework, Swagger, Appium, Cucumber, Jest, Mocha, Postman, Git

## WORK EXPERIENCE

Software Engineer

Jan 2023 – Apr 2023

TradeRev

Toronto, ON

- Implemented REST APIs in **AWS Serverless** with **PostgreSQL** and **Elastic Search** databases, which involved making lambda functions, handlers, controllers, query builders, post-processors, and adding on to **Swagger** files in **TypeScript**.
- Built a **NodeJS** script to run and manage multiple threads in parallel to query 6 million rows of data from **OracleDB** and generate 500,000 rows of data per file. Improved performance by **160%** when compared to single-threaded querying.
- Developed object-oriented backend services that integrate **Angular** concepts, like injection, which call external APIs from organizations like Okta and Adesa. This involved writing **Cucumber** integration and **Jest** and **Mocha** unit test cases.
- Diagnosed issues by analyzing rows of data from various databases on **DBeaver** and logs on **Amazon CloudWatch**.

Frontend Developer

May 2022 – Aug 2022


TutorOcean

Ottawa, ON

- Utilized **ReactJS**, **MeteorJS**, and **CSS** to develop web components to implement features to the website, such as building a tutor availability single or recurring blocking system and restructuring the tutor application form.
- Diagnosed issues and its reproduction steps by finding patterns in data retrieved from **MongoDB** using **Studio3T**, such as students being able to leave an online session when mandatory input fields in the check-out form are left empty.
- Fixed over **40%** of issues reported across all B2B web products.

Co-Founder and CTO

May 2022 – Present

Serv2U 

Waterloo, ON

- Managed and technically mentored a team of 5 software developers; worked closely with the UI team on a regular basis.
- Developed and restructured web components with **ReactJS** and **CSS** to improve their efficiency and reusability, such as using **Redux** to avoid prop drilling, thereby improving the platform's performance by over **50%**.
- Built a full-stack authentication system for signing in users on the platform, which included using State and Effect **React Hooks**. **JWT** authorization was also implemented, involving refresh and access tokens being updated through **cron** jobs.
- Deployed a **Flask** backend and **NodeJS** frontend using **Heroku** and redeployed to production once every month.

Test Automation Developer

Sep 2021 – Dec 2021

TutorOcean

Ottawa, ON

- Developed over 50 test cases for the B2C website using **Robot Framework**, **Selenium WebDriver**, and **Python**.
- Set up the Mobile Test Automation department, where **Appium** is used with **Robot Framework** to develop test cases.
- Maintained high work output by following the Agile with Scrum methodology.

## PROJECTS

TripTailor (UofTHacks Project) 

- Developed an AI platform that enables users to make their travel plans for any country in the world with ease.
- Engineered and built a multi-table **PostgreSQL** database to store users, destinations, and their relationships, which is managed by **ElephantSQL**.
- Fetches and displays images to the **ReactJS** frontend from the **Unsplash API**, whose queries consist of countries, cities, and locations being generated through NLP by the **Cohere API**.
- Developed backend REST APIs in **Python** with **Flask** and frontend API calls in **JavaScript**, hosted on **Render** platform.