

# KARAN SAHNI

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Source Code: Github.com/sahnik1

## EXPERIENCE

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### BlackBerry Limited

May - August 2021

*Developer Student*

Tools used: Python (Flask), Javascript, HTML, CSS, C#, .NET, MySQL, Git (Gitlab)

- Full-stack development (Python Back-end) of an FAQ web application which used NLP and database of question/answer information to **cut team's monthly workload by 25%**.
- Improved existing monolithic design to a more scalable architecture for future deployment as a microservice. **Optimized NLP searching algorithms for a speedup of over 180%**.

### CIBC Capital Markets

January - December 2020

*Production Application Analyst Co-op*

Tools used: Python, Java, Bash, MySQL, MapR, Grafana, Mercurial (Version Control)

- **Reduced Production log errors by 70%** through lead development of an error reporting program suite **running in production with 99% up-time**.
- Automated tasks with scripts to **increase deployment efficiency and reduce manual procedures by 50%**. Developed solutions for back-end users with data analytics, server health checks, and production issues.

## PROJECTS AND VOLUNTEERING

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### CarSearch Web API — Vehicle Information API

October 2019 - Present

*Python, SQLite, Flask-Restful, Heroku*

- Implemented a free RESTful API from aggregated data from previous project, provides detailed information for cars produced between 1975-2019 in JSON output. Deployed on Heroku making it publicly accessible.

### CarSearch — Full Stack Application

February - May 2019

*Java, React Native, MySQL, Python, Scrum*

- Google Vision API used to identify cars from pictures. Large database provided key car details for that vehicle such as Recall Info, Safety Rating and Fuel Economy.
- Mobile app Front-end in React, Back-end in Java, data in MySQL, and Web API scraping with Python scripts.

### McMaster Engineers Without Borders — Engineering Conference

October 2017 - March 2018

*Executive*

- Created/maintained the website for the conference and networked with experts in various engineering principles.

## TECHNICAL STRENGTHS

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### Programming Languages

Python, Java, C/C++, JavaScript, PHP, SQL, HTML, CSS, C# (.NET), Dart, Haskell

### Tools & Frameworks

React JS, Flutter, Git, Mercurial, Bash/Unix Shell Scripting, Amazon AWS S3, Grafana, OpenGL, Linux, LaTeX

## EDUCATION

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### Honours Computer Science — Bachelor of Applied Science

September 2017 - April 2022

*McMaster University, Hamilton, Ontario*

Relevant Coursework: Data Structures and Algorithms, Object Oriented Design (UML Diagrams), Software Development Life Cycle (SDLC, SCRUM) and Software Requirements Engineering / Documentation, Relational Databases Schema Design, Software Testing, Functional Programming, MVC Design