

# Shivam Bhatoola

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## Summary

Software Developer with experience in the Banking Industry. Graduating with an Honours Bachelor of Science (HBSc) focused in Computer Science from the University of Toronto in June 2023. Most proficient with Python, but always excited to learn new programming languages, frameworks, or tools. Quickly capable of understanding documentation and previous code bases.

## Work Experience

### Royal Bank of Canada (RBC)

Mississauga, ON

BUSINESS ANALYST INTERN

Summer 2019 - Summer 2021

- Built 3 internal applications during 3 internship terms:
  - An app to predict monthly and daily call volumes for each line of business at RBC using the Anaconda Python distribution (with libraries such as NumPy, Pandas, etc.), a SARIMA (Seasonal Autoregressive Integrated Moving Average) model, and Facebook's open source forecasting package: Prophet. The monthly predictions had an average accuracy rate of 94% and the daily prediction tool was useful since the forecasting team did not have a tool that directly predicted daily call volumes beforehand.
  - An app to assist the workforce management team with viewing, comparing, and validating information about work-from-home employees in the RBC Advice Centre. This app was crucial to sort any scheduling conflicts after the mass migration of employees to a work-from-home environment after the start of the COVID-19 pandemic.
  - An app to reconcile employee data from various internal sources. Previously, it would take the forecasting team a week to manually do this task, but with this application it could be completed in less than an hour!
- Programmed over 5 bots to automate other time-consuming daily processes in the Advice Centre (e.g., one bot simply read, searched, and displayed the differences between two files at two different dates). This allowed employees to focus on the activities that brought more value to the bank.
- Used SQL Queries to extract and sort data from the Advice Centre's call routing system to prepare weekly reports for the workforce management team.

## Education

### University of Toronto

Mississauga Campus

HONOURS BACHELOR OF SCIENCE (HBSc) IN COMPUTER SCIENCE

September 2018 - April 2023

- GPA:** 3.68/4.00.
- Honours & Awards:** Dean's List Scholar (2020-2023), University of Toronto Scholar Award.

## Skills

### Programming Languages & Frameworks

Python–Flask–Pandas, Swift–SwiftUI, Javascript–React, C, Java, PHP.

### Databases

PostgreSQL, MongoDB, Neo4j, Tableau.

### Agile Methodologies & Developer Tools

Git/GitHub, Scrum, Jira, Docker, VS Code.

### OSs

macOS, Linux.

### Languages

French & English (Ontario Certificate of Bilingualism + IB Higher Level Certificates).

## Projects

### DeerCourse

GITHUB.COM/ELYSIAYONG/DEERCOURSE

- Created a website for students to easily search, rate, and discover courses at the University of Toronto. Focused on creating the front-end of the website using React and the web scraper to crawl for course information within the university using Python.

### Candito 6 Week Strength Program

GITHUB.COM/SBHATOOLAUL/CANDITO-6-WEEK-STRENGTH-PROGRAM

- Developed an iOS application to convert Jonnie Candito's famous 6 week powerlifting program from its spreadsheet format using SwiftUI.

### Python to C Compiler

(PRIVATE REPOSITORY) GITHUB.COM/SBHATOOLAUL/PYTHON-TO-C-COMPILER

- A compiler that translates a subset of the Python programming language to C! This compiler was made in a 3-person team for CSC488: Compilers and Interpreters—a 4th year CS course at the University of Toronto Mississauga. Handled the creation of the final demo video, and won the best presentation award for the course! Each step of the compiler (i.e., Lexer, Parser, AST, Type Checker, IR, etc.) was worked on together.