

# Ridvik Pal

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## Education

### University of Toronto

Sep 2021 - May 2026

B.A.Sc. in Computer Engineering with Double Minor in Artificial Intelligence (AI) Engineering and Engineering Business

## Work Experience

### SEO IT Systems Assistant

May 2023 - Sep 2023

Ministry of the Solicitor General - Toronto, ON

- Automated creation of Excel database worksheets by programming VBA scripts, saving hours of work time each day.
- Generated daily data analytics reports processing, validating, and cleaning thousands of lines of raw data on the operation of Cisco codecs utilizing Excel power queries.
- Created and updated data for thousands of configuration items (CIs) in the configuration management database (CMDB) via the BMC Remedy Asset Management Console.
- Updated and managed project documentation for hundreds of projects.

### Mathematics, Physics, and Computer Science Tutor

May 2022 - Current

Varsity Tutors - Remote

- Tutored over 60 students ranging from high school to university level, specializing in mathematics, physics, and computer science.
- Am currently a 5-star rated tutor on the platform, receiving glowing recommendations from students and their parents.

## Projects

### MarkedUp ([github.com/ridvikpal/MarkedUp](https://github.com/ridvikpal/MarkedUp))

Python, Virtual Environments, REST APIs, PyQt5, Plotly, Pandas, Git

- Python desktop stock market app inspired by Yahoo Finance, built using the TwelveData REST API and PyQt5 GUI library.
- Supports stock quotes for over 20,000 stocks, interactive candlestick charts, smart autocomplete equity search, favourites watchlist, a custom GUI with light/dark themes, and internal multithreading.

### CarCartAPI ([github.com/ridvikpal/CarCartAPI](https://github.com/ridvikpal/CarCartAPI))

REST APIs, Java, Spring Boot, MySQL, Spring MVC, Maven, Git

- Java REST API built using Spring Boot that retrieves used car listings, updates used car listings, and provides car information using the ChatGPT 3.5 Turbo AI Model.
- Supports GET, PUT, POST, DELETE requests with fully multithreaded calls.

### RainyDay ([github.com/ridvikpal/RainyDay](https://github.com/ridvikpal/RainyDay))

Java, JavaFX, Maven, CSS, REST APIs, Git

- Java weather app built using a JavaFX GUI and a custom modular backend weather API.
- Supports current and future weather for over 1,000,000 cities, weather alerts, user notifications, 15 different light/dark themes and touch input.

### SimplyTrack ([github.com/ridvikpal/SimplyTrack](https://github.com/ridvikpal/SimplyTrack))

Python, MySQL, PySimpleGUI, Matplotlib, AES Encryption, Git

- Python Financial tracker app that stores financial data in a MySQL database with a GUI built in PySimpleGUI.
- Supports AES 256-bit encryption, data visualization with matplotlib, csv data import, a custom GUI with light/dark themes, bulk data modification and manual data entry.

### MatchMap

C++, GTK3, Make, Git, Linux

- C++ GIS mapping software built using the OpenStreetsMap database and GTK3 GUI library.
- Supports complete car routing, 19 international cities, multithreading, distinct colour scheme, a custom GUI with light/dark themes, and advanced search features.

## Skills

**Languages:** Python, Java, C++, SQL, Microsoft VBA, L<sup>A</sup>T<sub>E</sub>X

**Tools:** MySQL, PostgreSQL, Git, GitHub, Microsoft Excel, Maven

**Frameworks/Libraries:** Spring Boot, JavaFX, Qt, Pandas, Plotly, Matplotlib

**Concepts:** DevOps, REST APIs, Debugging, Multithreading, Engineering Design