# **RAPHAEL RATO**

# COMPUTER SCIENCE GRADUATE

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<u>LinkedIn</u>

GitHub

#### **PROFESSIONAL OVERVIEW**

Computer Science graduate with a strong foundation in software development, problem-solving, and systems thinking. Experienced in real-world technical environments, including freelance security system installations and team leadership roles. Proficient in core programming languages and passionate about building reliable, efficient software solutions. Eager to contribute to innovative development teams and grow as a professional software developer.

#### **WORK EXPERIENCE**

# **Technician**

Skynatics Security Technology, Centurion | 2021

- Security systems installer and support technician for CCTV and alarm systems.
- Assisted with the logistics, general support and repair of security equipment.
- Advised clients on optimal equipment placement and system setup for maximum coverage and effectiveness

# **General Store Manager**

Sable Hills KwikSpar, Roodeplaat | Part-time: 2020 - 2024

- Filled in when short staffed as a general floor and cashier manager
- Assisted in managing 30 staff members to ensure quality and proficiency.
- Handled stock and logistics in the back-end area of the store
- Handled clients to ensure satisfaction.

#### Freelance CCTV & Alarm Installer

Self Employed | 2021 - Present

- Installed and configured residential and small business CCTV and alarm systems
- Advised clients on optimal equipment placement and system setup
- Maintained and upgraded existing systems, ensuring continued reliability and functionality

#### **Events Technician**

Capital Productions | 2018 - Present

- Operated and maintained AV, lighting, camera, and sound equipment for various events
- Collaborated with event coordinators and performers to meet technical requirements
- Involved troubleshooting technical issues under pressure

# **EDUCATION**

# **BSc Computer Science**

University of Pretoria 2022 - Current

#### Distinctions:

- Discrete Structures
  (WTW115) 78%
- Mathematics (WTW134) – 82%
- Theoretical CS (COS210) – 76%
- Community-based project (JCP202) – 92%

#### **Secondary Schooling**

Rietondale Highschool 2016 - 2020

#### Distinctions:

- Engineering Graphics and Design - 86%
- Computer Applications Technology – 80%

#### **ACHIEVEMENTS**

- Executive Learner Counsil Rietondale Highschool (2020)
- Provincial Colours Soccer
- Cum Laude (2014)
- Mathematics Olympiad Participant (2015)
- 1<sup>st</sup> team Captain
  - Hockey
  - Cricket

# **General Store Manager**

Parktown Supermarket, Mayville | Part-time: 2024 - Present

- Filled in when short staffed as a general floor and cashier manager
- Handled stock and logistics.

#### **CODING PROJECTS**

# BushBuddy - AI Wildlife Detection Application (2025)

# https://bushbuddyapp.onrender.com/

React, Node.js, Python, PostgreSQL

Developing a full-stack application that allows users to track and share wildlife sightings. The system integrates AI-powered detection and features a social feed to display community findings.

- Responsible for front-end development, back-end architecture, and RESTful API integration
- Implementing user authentication, sightings feed, and locationbased tracking features while protecting endangered animals

# **Custom NoSQL Database (2025)**

React, Node.js, Python, PostgreSQL

Engineered a lightweight NoSQL database system from the ground up, focusing on JSON-based data storage, querying, and indexing.

- Designed a schema-less architecture to support flexible document storage
- Implemented core features such as data insertion, querying, updating, and deletion using TypeScript
- Emphasized modularity, type safety, and performance through custom-built data structures and file-based persistence

# Film & TV Review Platform (2024)

JavaScript, Node.js, Express, MySQL

Developed a dynamic web application inspired by IMDb, enabling users to search for, review, and rate movies and TV series.

- Built both front-end and back-end using JavaScript, with a RESTful API for handling data requests
- Designed and managed a relational database in MySQL to store user profiles, ratings, and movie data
- Implemented user authentication, review submission, and a responsive UI for browsing and interaction

#### **COMMUNITY SERVICE**

YaBana Village – 41hrs (2024)

- Assisted in the renovation of their learning centre
- Repaired broken computer systems and installed educational programs
- Taught learners and caretakers how to use the computers and relevant programs

# CORE PROGRAMMING LANGUAGES / RESOURCES

- C++
- Java
- JavaScript (html and css)
- React
- MySQL
- Linux
- GitHub

#### **SKILLS**

- Communication
- Critical thinking
- Time management
- Leadership
- Collaborative
- Adaptability
- Self-driven