Krish Patel

COMPUTER SCIENTIST

PERSONAL INFO

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LINKEDIN
https://www.linkedin.com/in/krish-patel887/

GITHUB
https://github.com/Krish887

WEBSITE
https://krish887.github.io/Portfolio-Website/

SKILLS

- Programming Languages: Python, Java, C/C++, HTML/CSS, JavaScript, SQL, DAX, Haskell, Elixir, Rust, Prolog
- Tools: Power Bi, Power Apps, SharePoint, Jupyter Notebook/Jupyter Lab, Microsoft Access, Excel, Django
- Courses: Software Engineering, Data Structures & Algorithms, Operating Systems, Database Systems, Data Science, Machine Learning, Artificial Intelligence, Computer Vision

EDUCATION

Computer Science, (B.Sc. (Hons) (Co-op))

2020-09 - 2025-04

TORONTO METROPOLITAN UNIVERSITY

WORK EXPERIENCE

Data Analytics Development (Co-op) | Bruce Power

2023-05 - 2024-08

- Created dashboards on **Power Bi** based off stakeholder requirements to drive process improvements.
- Implemented **SQL** and **Python** scripts for large batch uploads to reduce work labor hours and increase efficiency.
- Automated **real-time** changes in SharePoint using **Power Apps** and **Power Automate** to seamlessly trigger automation from app events.
- Used **DAX** programming for Power Bi dashboards to perform advanced calculations and queries on the data
- **Modeled** equipment failure rates and **forecasted** parts/material demands in collaboration with key stakeholders in order to influence maintenance programs.

Technical Systems Analyst (Co-op) | RBC

2022-05 - 2022-08

- Provided **testing**, **reporting**, **documentation**, and other services, using **IBM iSeries** and **z/OS**, in order to assist in the building and maintenance of **Messaging technologies** and servers.
- Provided **L2/L3 support of Messaging technologies**, including support to user community, resulting in ensured proper monitoring and alerting is in place for problem avoidance.
- Effectively communicated **complex technology** subject matter and potential **usage possibilities** to senior management, peers and application development teams.

Kumon Teaching Assistant | Kumon

2023-05 - 2024-04

- Provided one-on-one and group assistance to students in Math and English, helping them with classwork and homework to improve their understanding of key concepts.
- Assessed and recorded student performance, offering personalized feedback and guidance to help them grasp difficult topics and make necessary corrections for continuous improvement.

PROJECTS

INTRUDER DETECTION SYSTEM

2024-09 - 2024-12

- Developed a **facial recognition system** using **Convolutional Neural Networks (CNNs)** and the **ResNet-50 deep learning model** to classify individuals captured by cameras as either intruders or permitted civilians.
- **Trained the model** on a dataset of 13.5k+ images, including individuals with and without facial coverings, to enhance **detection accuracy**.
- Implemented **real-time monitoring**, **labeling** masked individuals as potential intruders, and **sending alerts** if detected for over 5 seconds. Designed to improve security through **automated**, **AI-powered surveillance**.

ECOFIX ADMIN DASHBOARD

2024-10 - 2024-12

- Developed and implemented a comprehensive **admin dashboard** using **Django**, with **backend SQL** scripts built on **MySQL** and **data visualizations** designed in **Tableau**.
- Engineered **backend functionality** to support loyalty transactions, purchases, chat sessions, and support tickets.
- Integrated **dynamic filters** and **interactive visualizations** to meet **user requirements**.
- Ensured seamless collaboration across teams, maintaining alignment with **wireframes**, **user stories**, and **API** outputs for consistent **data processing** and **visualization**.

POWER APPS DASHBOARD

2024-01 - 2024-03

- Developed a comprehensive **model-driven app dashboard** using Power Apps, enabling seamless **data input** and **retrieval** from SharePoint to optimize information accessibility and improve decision-making processes for end-users.
- Automated **real-time updates** and **workflows** in SharePoint through Power Automate, ensuring **data integrity** and streamlining repetitive tasks, which significantly reduced manual effort and increased overall operational efficiency.

TIC-TAC-TOE GAME

2022-12 - 2023-02

- Developed a multiplayer bash game on a **Linux** platform, integrating a random card generator with robust **error handling** mechanisms to ensure smooth gameplay and system stability during player interactions.
- Utilized advanced **matrix manipulation** techniques, **searching algorithms**, and **data structures** to accurately check game states and update the board in real-time, ensuring dynamic and responsive gameplay.

AIRPLANE BOOKING SYSTEM

2022-10 - 2022-12

- Designed and programmed a **command-line** airplane booking system using Java within **Visual Studio Code**, incorporating features such as flight selection, seat availability, and booking confirmation, offering users a streamlined **interface** to simulate real-world booking scenarios.