OMAR EBRAHIM

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PROJECTS

PuppyPi

- Quadrepedal robot dog that can be controlled with a remote control or autonomously with computer vision
- Developed for research in data acquisition of various surfaces and terrains to optimize quadrapedal robot navigation
- Created using **Python and Raspberry Pi**

Cyberbot

- Autonomous robot vehicle that navigates a maze and avoids obstacles with computer vision
- Developed for research to encorporate machine learning into the navigation system of vehicles
- Created using **Python and Pixy2 Camera**

Reminder-CLI

- Lightweight command-line tool for setting time-based reminders and receiving desktop notifications in the terminal
- Effortlessly schedule time-based reminders directly from your terminal
- Created using **Go**

Password Generator

- Simple command-line password generator written in Bash
- Generate strong and secure passwords with customizable options
- Created using **Bash and OpenSSL**

QR Code Generator

- Simple web-based QR Code generator that allows users to create QR codes for texts or URLs
- Create customizable QR codes effortlessly for diverse applications
- Created using **HTML, CSS, and JavaScript**

ATM Machine

- Simple command-line ATM machine simulation
- Perform basic banking operations, such as checking account balance, withdrawing funds, and depositing funds
- Created using **Java**

FloModoro

- Android stopwatch application that uses the Flowmodoro technique to help users focus on their work
- Easily export Flowmodoro sessions history to **CSV** files for data analytics
- Created using **Kotlin and Android Studio**

EXPERIENCE

Quality Engineer

Valiant TMS   May 2024 - September 2024

- Automated quality operations reducing **30+ minute** manual tasks into **seconds**
- Developed **Excel VBA** and **SAP** scripts reducing **time**, **cost**, and **errors** by **80%**

Research Assistant

University of Windsor   September 2023 - April 2024

- Conducted research and development in **robotics, sensors, and computer vision**
- Developed **Python** libraries for seamless integration with **Cyberbot** and **PuppyPi**

Manuscript Reviewer

Manning Publications   December 2023 - Present

- Reviewed **Neural Networks** section of liveproject **Four AI Algorithm Projects** by Rod Stephens
- Reviewed book **Django in Action** by Christopher Trudeau

President

University of Windsor Board Games Club (UWBGC)   February 2021 - June 2022

- Grew club membership to **300+** members with **in-person, DnD, MTG, and online** events
- Developed **teamwork**, **management**, and **communication** skills in a diverse environment
- **Most active** club in the **University of Windsor** with **100+** events per year

SKILLS

Development: Java, Ruby, PostGreSQL, MongoDB, HTML, CSS, Javascript, React, Svelte, Kotlin
Operations: Python, Go, Groovy, Bash, Linux, AWS, Docker, Kubernetes, Istio, Terraform, Ansible, Nginx, Jenkins, Artifactory, Prometheus, Grafana

EDUCATION

Bachelors of Applied Science

University of Windsor   September 2020 - August 2025