Arkkan El-Khatib

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Professional Summary

Software Engineer with 10 years of programming experience (hobbyist and professional) and nearly 3 years of industry experience in web application development. Expertise in languages like Java, Golang, JavaScript, and Python, with proficiency in full-stack development, CI/CD pipelines, and cloud-based deployments. A proactive learner passionate about creating innovative solutions, including libraries and applications inspired by personal interests.

Experience

Agriculture and Agri-Food Canada – *Programmer Analyst (90-Day Casual Contract)*

Aug 2024 – Nov 2024

- Designed proof-of-concept solutions using Microsoft Power Platform, C#, and JavaScript, showcasing early technical demonstrations for a SharePoint On-Premises migration project.
- Gathered and documented stakeholder requirements for project planning and execution.

Agriculture and Agri-Food Canada – *Web Developer*

May 2021 – Dec 2021 and May 2022 – Aug 2023

- Automated data migration using a Python CLI tool, leveraging APIs, HTTP requests, and database calls to ensure seamless transition with minimal technical debt.
- Debugged and optimized CI/CD pipelines for MS Azure and GitHub, improving operational efficiency and reducing manual review time.
- Enhanced Java Spring Boot applications by integrating new features, fixing bugs, and implementing stakeholder requests using libraries like Hibernate ORM, JSP, ReactJS, and AngularJS.

Carleton University – *Teaching Assistant*

Jan 2021 – Apr 2021

- Delivered tutorials and office hours for programming and documentation tools (Python, Java, LaTeX), ensuring students mastered course material.
- Utilized Discord for interactive learning, conducting practical demonstrations and answering student queries effectively.

Technical Skills

- Front-End Development
- Web API Scripting
- Unit Testing
- Back-End Development
- Proof of Concept Scaffolding
- Stress Testing
- Database Scripting
- Technical Demonstrations
- Integration Testing

Education

Carleton University

Bachelor of Computer Science: Focus in Software Engineering – GPA: *3.91*

April 2024

Projects

Octopath Team Builder

Golang library and ReactJS/TypeScript web application for team planning in Octopath Traveler 1 and 2.

- Designed a Dockerized web application deployed on Google Cloud Platform with PostgreSQL for persistent storage.
- Integrated game data to allow users to plan optimal teams, simplifying resource management for Octopath Traveler 1 and 2.

Technologies: Go, ReactJS, TypeScript, PostgreSQL, Docker, Google Cloud Platform

Persona 5 Open-Source Library

Open-source Golang library for Persona 5 Royal data retrieval and fusion calculations.

- Automated data extraction using HTTP requests and HTML parsing to provide users with detailed Persona fusion options.
- Enabled players to determine optimal strategies for acquiring Personas through an intuitive and efficient library design.

Technologies: Go

Sorting Algorithm Visualizer

Interactive GUI application to visualize and learn essential sorting algorithms in Go programming language.

- Built a desktop tool with visual animations for sorting algorithms like Merge Sort, Selection Sort and Bubble Sort, enhancing understanding of algorithmic efficiency.

Technologies: Go, Fyne.io (GUI library)

Python AI Upscaler Web Application

AI-powered image upscaling platform with side-by-side comparison capabilities.

- Created a Flask-based web application that allows users to upload images for AI-based upscaling using the Super-Image Python library.
- Architected a microservices-based backend with RabbitMQ for communication, MongoDB for temporary image storage with Docker and Kubernetes for scalable deployments.

Technologies: Python, Flask, Super-Image (Python Library), RabbitMQ, Docker, Kubernetes, MongoDB