Pule Tshetlha

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# SUMMARY

Full Stack Software Developer with approximately 2 years of experience building responsive web and mobile applications focused on user experience, performance optimization, and scalable architecture. Successfully delivered 6+ production applications using C#/.NET, JavaScript, Node.js, SQL, and Low-Code/No-Code platforms like FlutterFlow, Bubble.io, and Oracle APEX. Implemented Agile methodologies including Kanban and Scrum. Seeking a Junior Software Developer position where creative problem-solving is encouraged, dependability is valued, and the occasional tabs versus spaces debate is welcome.

# SKILLS

**Programming Languages:** Java, C#, C++, Python, SQL, Ladder Logic, PL\SQL, Oracle APEX.

**Web Technologies:** HTML, CSS, JavaScript, RESTful API, Servlets, JSP, jQuery.

**Database Management:** mySQL, Microsoft SQL Server, Oracle Database.

**Frameworks and Libraries:** Java EE / Jakarta EE, Spring boot, ASP.NET Core, Hibernate, Entity Framework, FlutterFlow.

### Soft Skills:

* Strong problem-solving and critical thinking abilities, adept at breaking down complex issues and finding effective solutions.
* Excellent collaborative and interpersonal skills, proven track record as a team player who contributes actively and constructively.
* Comfortable working independently as well as part of a team, able to adapt to changing priorities and environments.
* Skilled at communicating technical concepts and ideas clearly and effectively to both technical and non-technical stakeholders.

# EXPERIENCE

## Software Developer

### X Spark October 2024 – Present

### Midrand, Gauteng

* **Learning & Development:** Conducted in-depth research on FlutterFlow, Bubble.io, and Cursor to gain expertise in low-code/no-code platforms and modern web and mobile application development tools.
* **Professional Development:** Enrolled in ORACLE APEX Developer Professional Certification (company-sponsored), working towards mastery of application development using Oracle APEX.
* Investigating zero-rating and USSD pricing within the South African market, contributing to a system in development called Tik'ibox—a digital wallet aimed at enhancing financial accessibility and mobile transactions for banked and unbanked people.
* Integrated the VULAVULA – LELAPA.AI language translation API into Tik'ibox, enabling users to interact with the system in 8 of the 11 official South African languages, as well as Shona, to accommodate non-English-speaking South Africans.
* **Tech Stack:** FlutterFlow, Firebase

## Software Developer

### KTC-ZA August 2023 – October 2024

### Centurion, Gauteng

* Maintained all SANRAL's E-toll internal and public-facing websites by implementing responsive design and optimizing load times, improving overall user experience.
* Identified, investigated, and resolved user-reported bugs, focusing on data tracking, transaction processing, and account management issues.
* Updated existing features, by installing new libraries, implementing and integrating new APIs, to enhance user experience and future-proof the systems.
* **Kanban Team Tech Stack:** PHP, C#, JavaScript, jQuery, .NET, ASP.NET Core, SQL Server, Azure DevOps, Git, Kanban Methodology.
* Developed a vehicle monitoring system for South African Police Service's Special Investigation Unit, integrating with e-toll infrastructure to monitor high-interest vehicles across Gauteng.
* Implemented real-time and ad-hoc passage detection, with instant alerts for vehicles linked to legal infractions, outstanding warrants, and other law enforcement concerns.
* Currently expanding the system for nationwide deployment, extending its use to traffic law enforcement and border control agencies throughout South Africa.
* Migrated and maintained SANRAL's TCH (Transaction Clearing House) website to a new web platform.
* Developed and integrated features for e-tag management, vehicle registration, account top-ups, etc., mirroring the functionality and user interface of the existing SANRAL mobile application.
* Implemented real-time transaction processing and account updates, facilitating seamless toll payments and improving traffic flow across affiliated toll plazas, enhancing national tolling operations.
* Participated in daily stand-up meetings, fortnightly sprint planning, product reviews, and retrospectives.
* Collaborated with senior developers in weekly code reviews, implementing feedback to refactor and optimize critical system components.
* **Scrum Team Tech Stack:** C#, ASP.NET Core, Blazor, Mudblazor, SQL Server, LINQ, Entity Framework, Azure DevOps, Git, Agile-Scrum Methodology.

**Intern Projects**

**Tag Disposal and Tag Batching**

* Led the migration of legacy WinForms applications (Tag Disposal and Tag Batching) into a unified web-based platform using C#.
* Modernized data access by transitioning from SOAP-based interactions to Entity Framework, incorporating LINQ and strongly typed models.
* Enhanced security with Microsoft Identity, implementing authentication and role-based authorization.
* Identified and fixed several lingering bugs and performance issues in the stored procedures supporting the WinForms application.
* Deployed the solution via Azure CI/CD pipelines, ensuring smooth delivery to dedicated on-premises servers.
* Prepared detailed documentation for training and future reference, enabling efficient onboarding and system adoption.

**Impact**

* Increased tag scanning and categorization efficiency by 300%.
* Delivered a centralized, scalable platform for all tag-related operations, improving operational efficiency and user experience.
* Proactively addressed compatibility issues by consolidating legacy applications into a secure, modern web solution.
* **Tech Stack:** C#, ASP.NET Core, Blazor, Radzen, SQL Server, LINQ, Entity Framework, Azure DevOps, Git, Kanban Methodology.

# EDUCATION AND CERTIFICATIONS

## National Diploma in Information Technology

Tshwane University of Technology • Pretoria, Gauteng April 2024

* Specializing in Intelligent Industrial Systems. Majored in Software Development and Electronics.
* Relevant Coursework: Software Development, Embedded Systems, Digital Electronics, Mathematics.

**Azure Fundamentals (AZ-900)**

Issued by Microsoft February 2024

• Demonstrates foundational level knowledge of cloud services and Azure cloud platform.

**Azure Developer Associate (AZ-204)**

Issued by Microsoft February 2024

• Validates skills in developing applications and services that run on the Azure cloud platform.

# PERSONAL PROJECTS

## Rental Property Management System

*"There's an app for that" - for all your landlord woes.* • [Click here to check it out!](https://github.com/Pzzles/Tenant_Management_System)

* Developed a tenant and apartment management system to streamline onboarding, lease tracking, and overall rental operations.
* Incorporated maintenance request and repair tracking module to efficiently manage, prioritize, and resolve maintenance tasks.
* Implemented real-time communication feature for interactions between landlords and tenants.
* Document management to store and organize all critical lease agreement documents, contracts, and other related files.
* Built a reporting and analytics dashboard to provide landlords with valuable insights into occupancy rates, maintenance trends, and key performance indicators.
* **Tech Stack:** C#, Blazor, SignalR, SQL Server, Entity Framework.

## Hydroponic System

*It's like farming, if farming went to private school.* • [Click here to check it out!](https://github.com/Pzzles/HydroponicSystem)

* Developed a fully automated hydroponic system using sensors, actuators, and microcontroller hardware.
* Wrote control algorithms to seamlessly manage hardware operations and automate system behavior.
* Built an intuitive web interface featuring user authentication, dashboards, manual controls, and AI-powered suggestions.
* Integrated external APIs for real-time weather data, plant databases, and a ChatGPT Large Language Model for intelligent insights.
* Enabled both automatic and manual operation modes, empowering users to automate system control or manually adjust settings like temperature, lighting, and nutrient flow.
* Designed a database for efficient storage and retrieval of user profiles, sensor data, and plant information.
* **Tech Stack:** C#, Razor Pages, JavaScript, SQL, C++, Node-RED, Arduino.

## Automated File Sorting Background Service

*Turning your digital clutter into order—because your messy desk is enough!* • [Click here to check it out!](https://github.com/Pzzles/AutomatedFileSortService)

* Built a Windows background service using *FileSystemWatcher* to monitor the Downloads folder for new file downloads.
* Automatically detects file types and moves them to the appropriate folder on the desktop, ensuring the Downloads folder remains clutter-free.
* Dynamically creates new folders if the file type doesn’t have an existing destination, ensuring files are always organized in their appropriate locations.
* Efficiently handles incomplete downloads by filtering out temporary files (e.g., .crdownload, .part).
* **Tech Stack:** C#, .NET, Windows Services