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!

• 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!

• 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!

• 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