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c Republic of the Congo

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Skills

Node.js
Express.js
WPF and c#
Flutter
SQL databases
Agile methodologies
Problem-solving
Collaborative teamwork



Languages

French
Native
English
Advanced

Chadrack Ngunza

Software Engineer

Experienced Full Stack Engineer with a demonstrated history of working in the tech industry. Skilled in C#, JavaScript, SQL and DART. Strong engineering professional with a Bachelor's Degree in Computer Engineering from Pan-African University of Congo.

Experience

▪ FullStack Developer

Aurtech Technology

Kinshasa, Kinshasa, Democratic Republic of the Congo

Jan 2022 - Present

- The Daurecard plateform have an API using Node.js and Express.js, specifically tailored to interface with a MySQL database and Flutter mobile app. Its key technical features include:
 1. the capability to register, modify, deactivate, and generate vCard files containing user contact information. Notably, this system allows for the creation of up to 5 different profiles for each contact, resulting in the generation of up to 5 distinct vCards per contact.
 2. This API is integrated into an Android mobile application developed using Flutter. The application is built upon a robust architecture that facilitates user authentication (login), contact creation if not already existing, and the subsequent creation of one or multiple profiles. Once a profile is created, the application enables the encoding of the corresponding vCard download link onto an NFC-enabled smart card.
 3. Utilizing an algorithm designed for proximity detection, the application can detect nearby NFC smart cards. It offers the functionality to overwrite previous data and write the vCard information onto the smart card. Utilizing an NFC-enabled smartphone, users can effortlessly scan the smart card, triggering the automatic download of the vCard. Adding another profile simply requires selection within the application interface and encoding it onto the smart card.

- Conceived and executed a sophisticated 'command station' Android kiosk application, developed in Flutter, tailored for screens larger than 15 inches.Its key technical features include:

1. Employing GetX for robust state management, this advanced system interfaces seamlessly with a Bluetooth thermal printer for invoice printing while dynamically detecting printer connectivity changes.
2. Behind the scenes, the application intricately integrates with a Django Rest Framework API, orchestrating data retrieval, manipulation, and server command transmissions. Leveraging cutting-edge algorithms, including a periodic timer, it intelligently reverts to an idle state after two hours of user inactivity.
3. The system's technical architecture includes a secure popup interface requiring a code input, granting authorized technical personnel access to configuration settings for printer reconnection. Furthermore, stringent regex validations are applied to ensure data accuracy, specifically preventing erroneous phone number inputs during user information entry.
4. Strict operational timeframes are enforced, limiting commands to specified hours (before 8 am and after 6 pm), enhancing operational efficiency and control.

- Conceived and executed an intuitive electronic archiving software employing advanced algorithms to simplify digital data management and preservation using WPF and c#. Its key technical features include:

1. Secure Storage: Utilizes byte array conversion and reconstruction algorithm exclusively within its internal PDF reader, ensuring confidentiality and integrity of sensitive data.
2. Intelligent Indexing: Employs intelligent indexing for swift and precise retrieval of archived documents, allowing users to recreate physical archive structures using a tree view algorithm. The tree view algorithm creates a parent location and can attach a collection of child location to it but it can also creates only parent locations based on your need.
3. Multi-format Compatibility: Supports and can import PDF files, converting them into byte array and then saving them. It can also digitizes paper documents by scanning and saving them in PDF format, then converting them into byte arrays.
4. Advanced Customization: Offers customizable options tailored to individual or organizational needs, ensuring a flexible and adaptive user experience.
5. Synchronization and Backup: Enables database backups generating .bak files for SqlServer and .sql files for MySql.
6. Licensing Security: Accepts a license file containing activation keys employing triple-layer encryption (AES 256-bit and a unique RSA signature key) to validate the license provider, ensuring system date integrity for software usage.
7. Advantages include increased efficiency in data retrieval, reinforced data security measures, and adaptability to specific user or organizational requirements.

Education

▪ Bachelor of Science in Computer Engineering

African University of Congo

Oct 2013 - Jul 2016

▪ Mathematics Award

African University of Congo Honors