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# Full-Stack Engineer

By consistently providing value to companies and proving to be a reliable asset, I have established myself as a Full-Stack Engineer that any organization would be proud to have. With 4 years of hands-on experience and a strong programming foundation, I bring a unique mix of problem-solving ability, adaptability, and creative thinking to every challenge. I thrive in fast-paced environments where innovation is key, and I am dedicated to delivering high-quality, scalable solutions. My passion for continuous learning drives me to explore emerging technologies, directly contributing to team growth and project success. Known for my discipline, consistency, and resilience, I approach every goal with long-term focus and determination. I also take pride in fostering collaborative, growth-oriented environments. With these strengths, I am confident in my ability to drive innovation, improve processes, and deliver impactful results that align seamlessly with a company’s mission and vision.

# Education

2022-2023:***Certificates of competencies in Programming languages*** *Code College, South Africa, React, SQL, Node.js, MERN, Java, Beginner & Advanced.*

2019-2021: **Diploma in Information Technology,** *Damelin, South Africa.Achieved 12 distinctions across all subjects.*

2015:***National Senior Certificate,*** *Oumar bin Khatab. Ivory Coast.*

# Skills

* **Programming Languages**: Python, Java, C#, JavaScript,
* **Frameworks & Libraries**: React, Node.js, Flask, MERN, Express, Html, CSS
* **Databases**: PostgreSQL, SQL, MongoDB
* **Version Control**: Git, GitHub, GitLab, GitKraken
* **Cloud Services**: Azure DevOps, AWS
* **Tools**: Docker, Unit Testing

### Current Learning

* **Machine learning**: Gaining a solid understanding of the foundational and intermediate concepts in machine learning, including supervised and unsupervised learning, model training and evaluation, overfitting and regularization, feature engineering, and algorithm selection. Practical exposure includes working with popular libraries such as Scikit-learn and TensorFlow, training models like linear regression, decision trees, and support vector machines, and interpreting performance metrics. These skills lay the groundwork for solving real-world problems using predictive analytics and intelligent automation.
* **Computer vision**: Building core competencies in computer vision, from basic image processing and object detection to intermediate-level tasks such as image classification, contour detection, and facial recognition. Learners gain hands-on experience using tools like OpenCV and deep learning frameworks (e.g., CNNs in TensorFlow or PyTorch) to analyze and manipulate visual data. These skills are vital for developing intelligent systems that understand and interpret images critical in fields like robotics, healthcare, surveillance, and augmented reality.

**Communication & Soft skills:**

* **Effective Collaboration & Communication** Demonstrated strong communication skills by leading daily stand-up meetings during my time at Code College, ensuring team alignment and progress tracking. My experience collaborating with peers in pair programming sessions and Agile environments has built my ability to work productively in diverse, cross-functional teams.
* **Proactive Problem-Solving & Technical Support** Consistently take initiative in identifying and resolving technical issues. I’ve supported peers by debugging their code and documenting comprehensive bug reports—an approach I continue to apply professionally to ensure software quality and faster iteration cycles.
* **Continuous Learning & Mentorship** I actively promote a culture of growth and knowledge-sharing by mentoring new students and team members, helping them grasp key coding concepts and adopt best practices. My leadership and willingness to support others reflect a mindset of continuous improvement, making me a strong asset in any collaborative development environment.
* **User-Focused Mindset & Professionalism** My internship at Pink Elephant strengthened my understanding of structured IT service management and professional communication. This experience helped me approach development with user needs in mind, ensuring the systems I build are intuitive, reliable, and aligned with business goals.
* **Innovation & Adaptability** At Cixvora, I regularly research and recommend new technologies to enhance development processes and product performance. This forward-thinking approach contributes to consistent product improvement and aligns technical decisions with long-term business objectives.
* Mentorship: I enjoyed assisting new students by helping them understand key coding concepts and offering guidance on best practices, ensuring they had a smooth transition into the coding environment.

# Professional Experience

**2025 – Present: Part-time Full-Stack Engineer, Cixvora**

Cixvora is an early-stage startup in the automotive industry, where I contribute to the development and optimization of scalable solutions. My work involves integrating code into embedded systems and building full-stack web applications that support the broader platform. I focus on clean code architecture, component reusability, and performance. My responsibilities include implementing new features, maintaining RESTful APIs, and collaborating closely with team members to ensure seamless integration between the frontend, backend, and hardware systems. I also proactively research and recommend new technologies that align with project goals, driving continuous product improvement and user satisfaction.

2022 – 2025: Junior full-stack Engineer Intern, **Compuways.**

During my internship, I gained hands-on experience developing user-centric software solutions using Python, Java, and modern JavaScript frameworks. I assisted in building internal tools and web applications, participated in agile ceremonies, conducted unit testing, and took part in code reviews to ensure clean and maintainable codebases. This role deepened my understanding of full-stack development and strengthened my skills in collaborative software engineering and debugging.

2021: Student intern, **Pink Elephant**.

As an intern, I was introduced to IT service management practices based on ITIL standards. I supported service desk operations, logged tickets, tracked incident resolution progress, and observed real-world applications of enterprise-level IT support. This experience enhanced my understanding of structured IT processes, professional communication, and user support systems in a corporate environment.

# Project Portfolio:

### Python applications

**Natural language processing(NLP) Text summariser**

I developed a Python script implementing extractive text summarization, a fundamental Natural Language Processing (NLP) technique. The script processes long articles by splitting text into sentences and words, filtering out common stopwords, and building a frequency map to score word importance. Using Python’s built-in libraries lik re for regular expressions and heapq for efficient sentence ranking, it extracts the top sentences to generate concise, meaningful summaries. This project strengthened my understanding of core NLP concepts and demonstrated how simple algorithms can transform raw text into actionable insights. It is highly relevant for full-stack Engineers working with text-heavy applications such as news aggregators, chatbots, and content management systems, enabling the creation of smarter, user-friendly features that enhance information accessibility and user experience.

[Github link](https://github.com/Smailya/Natural-language-processing-NLP-Text-summariser):

**Web Scraper:**

Developed a Python script to efficiently scrape business listings from Yellow Pages South Africa, extracting key details such as business names, phone numbers, emails, and websites, and saving the data into a structured CSV file for easy analysis. The script leverages the requests library to fetch HTML content and BeautifulSoup for parsing and extracting relevant information from the web pages. This project enhanced my skills in web scraping, including handling HTTP requests, parsing complex HTML structures, and automating data extraction workflows. It also deepened my understanding of working with APIs, managing data formats like CSV, and overcoming challenges such as anti-bot protections. Mastery of these techniques is essential for full-stack Engineers building data-driven applications and backend automation tools.

[Github link](https://github.com/Smailya/-Yellow-Pages-South-Africa-Web-Scraper):

**Trading Bot Application**Technologies: Python, Flask, GitHub

I developed an automated cryptocurrency trading bot utilizing advanced technical indicators such as RSI and MACD for real-time trade execution. The application includes a Flask-powered dashboard and integrates email notifications to alert users of trading signals. This project matters for full-stack engineers because it merges financial logic with real-time backend automation, a common need in fintech platforms. Through this project, I gained hands-on experience with Flask, algorithm development, asynchronous task handling, and notification systems. These skills are valuable to companies seeking to build intelligent automation tools, dashboards, or trading systems that support timely decision-making, financial insight, and seamless system operations.

[GitHub Link](https://github.com/Smailya/Trading_Robot)

**Keto Diet Assistant (Keton)**Technologies: Python, OpenAI API, GitHub

I created an AI-powered assistant that provides personalized nutritional advice for ketogenic diet users, leveraging OpenAI's GPT-3.5-turbo model. I implemented robust error-handling mechanisms to ensure smooth interaction under API rate limits. This project is crucial for full-stack engineers as it combines AI, API integration, and user-facing utility — ideal for health-tech and personalized assistants. I learned how to integrate and structure OpenAI prompts, manage API limits, and enhance conversational logic. The ability to create intelligent, engaging, and helpful user assistants offers companies an edge in customer experience, enabling scalable support and content personalization.  
[GitHub Link](https://github.com/Smailya/KetoBotAI)

**Automated Tweet Collection App  
Technologies: Python, GitHub**

I developed a tool that automates the collection and storage of tweets using the Twikit library, incorporating robust error handling for rate limits and cookie-based authentication. This project is important for full-stack engineers working with real-time data pipelines, social media integration, or content scraping tools. I learned how to authenticate sessions using cookies, manage data ingestion workflows, and process large volumes of data while staying within usage limits. These skills allow companies to efficiently gather insights from social platforms, automate content aggregation, and support social listening strategies.

[GitHub Link](https://github.com/Smailya/KetoBotAI/blob/main/Automate%20Tweet%20(X)%20Retrieval%20and%20Storage!/XsentimentDataAnalysis/main.py)

**MoodAnalyser App**Technologies: Python, TextBlob, GitHub  
 I adapted and enhanced a sentiment analysis tool using TextBlob to detect the emotional tone of user input and convert it into emojis, making emotional data more interactive. This is important for full-stack engineers interested in building emotionally aware applications such as mental health tools or user feedback systems. I gained experience in text processing, NLP logic, and front-end emotional mapping. These capabilities help businesses build empathetic, engaging software that resonates with users, increases retention, and adds human-like interactions in digital experiences.

[GitHub Link](https://github.com/Smailya/KetoBotAI/blob/main/MoodAnalyser/SentimentAnalysis/sentiment_cript.py)

**Multiplayer Joke Game  
Technologies: Node.js, OpenAI API, GitHub**

I developed a web-based multiplayer game where users submit jokes and the OpenAI API determines the funniest submission. The app supports continuous play and real-time evaluation. This project showcases how full-stack engineers can combine gamification, real-time interactions, and AI-based judgment to create engaging applications. I honed my skills in backend logic, real-time user session management, and API decision automation. This knowledge is valuable for companies aiming to boost engagement through gamified features, branded experiences, or user-generated content ecosystems.

[GitHub Link](https://github.com/Smailya/Joke-Battle-Game)

### React Applications

**Dynamic React Table***Technologies: React, JSON, GitHub*I built a dynamic React-based table that updates automatically based on external JSON data, eliminating the need for manual adjustments. This project highlights the value of dynamic UIs and data-driven components in frontend development — an essential capability for full-stack engineers. I strengthened my React fundamentals including component design, prop handling, and rendering optimization. These skills allow companies to deliver flexible, maintainable interfaces that scale with their data, reducing developer workload and increasing responsiveness to change.

[GitHub Link](https://github.com/Smailya/React/tree/main/dynamic_tables)[Deployment](https://precious-snickerdoodle-148c0c.netlify.app/)

**Weather App with Redux***Technologies: React, Redux, OpenWeatherMap API, GitHub*I developed a weather application using Redux and the OpenWeatherMap API to display real-time weather conditions. This project demonstrates the importance of managing complex application state using Redux, a core skill for scalable frontend engineering. I gained experience integrating third-party APIs, managing asynchronous actions, and designing clean user interfaces. Companies benefit from this expertise when building modern, interactive dashboards or real-time information tools that require robust and maintainable state control.

[GitHub Link](https://github.com/Smailya/React/tree/main/second-project)[Deployment](https://dreamy-chaja-d48559.netlify.app/)

**React Todo App***Technologies: React, GitHub*I created a simple yet effective Todo application where users can add and remove tasks. Though foundational, this project is crucial for full-stack engineers as it covers core CRUD functionality, state management, and user interaction — the backbone of most apps. I deepened my knowledge of React hooks, local state, form handling, and clean UI logic. These foundational skills ensure that companies can rely on me to build efficient, user-friendly interfaces that support everyday business workflows and productivity features.

[GitHub Link](https://github.com/Smailya/React/tree/main/third-project)[Deployment](https://celadon-figolla-22f387.netlify.app/)

**Responsive Portfolio Gallery***Technologies: React, Bootstrap 4, GitHub*I developed a responsive and interactive portfolio gallery that allows users to filter projects by category. This project highlights the importance of responsive UI/UX and dynamic filtering in modern web development. I strengthened my skills in responsive design using Bootstrap, managing component states, and user interaction logic. For companies, this skillset translates to visually appealing and user-adaptive interfaces that showcase content effectively across devices and platforms.

[GitHub Link](https://github.com/Smailya/React/tree/main/fourth-project)[Deployment](https://snazzy-sunshine-eb590b.netlify.app/)

**Shopping cart Portfolio Gallery***Technologies: React, GitHub*I built an interactive shopping cart application in React that supports adding, removing, and updating items, applying advanced JavaScript methods such as filter, map, find, and reduce. This project is a key exercise in replicating e-commerce functionality, and it reflects essential problem-solving and UI management techniques. I enhanced my understanding of React props, hooks, and real-time updates — all of which are critical in product-based platforms. These capabilities enable companies to build seamless shopping experiences that improve conversion and customer satisfaction.

[GitHub Link](https://github.com/Smailya/React/tree/main/Shopping%20cart/src)[Deployment](https://fantastic-mochi-49d13e.netlify.app/#/)

**E-commerce Website***Technologies: Javascript*I developed a full-featured e-commerce platform that connects buyers and sellers through a seamless interface. The platform includes secure payment integration, real-time chat, and delivery coordination. This project is vital for full-stack engineers as it covers nearly every aspect of real-world web applications, from front-end interaction to backend logistics. I gained deep insight into user journey mapping, transaction workflows, responsive layouts, and real-time communication. These skills empower companies to launch scalable, secure, and user-friendly commerce platforms that drive revenue and brand trust.

[GitHub Link](https://github.com/Smailya/E-Commerce-Website-Free-Template)

### Database Experience

**Database Design & Development***Technologies: PostgreSQL, GitHub*I Designed and developed relational databases implementing normalization and table constraints, including a Dating Database and an Employee Database.   
[GitHub Link](https://github.com/Smailya/Sequel/tree/main)

### C# Applications

**Online Examination Website:**

I developed a comprehensive Online Examination System using C#, ASP.NET, and SQL Server, designed to digitize and streamline the assessment process for educational institutions. The platform enables teachers to create and manage multiple-choice and theory-based exams effortlessly, while students can register, participate in exams, and instantly view their results. Key features include automated grading for objective questions, a dynamic leaderboard to encourage competition, and a user-friendly interface tailored for both educators and learners. This project enhanced my skills in full-stack web development, including front-end and back-end integration, database design and management, and implementing secure user authentication. It demonstrates my ability to build scalable, efficient, and transparent digital solutions that improve operational workflows, reduce paper usage, and deliver accurate, real-time results-valuable expertise for modern education and corporate training environments.

[Github link](https://github.com/Smailya/Online-Examination-Website-C-/tree/main):

**Matching Game:**

Developed an interactive Memory Matching Game using C# within the .NET Console environment. The game features a 3x2 grid of randomly shuffled letter pairs, where players select two cards per turn to find matches. Correct matches remain revealed while mismatches flip back, with the game tracking total wins and allowing replay or exit at any time. Key technologies and concepts applied include C# for core game logic and control flow, console input/output for user interaction, threading to implement timed pauses enhancing user experience, and the Fisher-Yates shuffle algorithm for randomizing card positions. This project strengthened my skills in managing game state, handling user input, and implementing clean, structured logic-foundational competencies valuable for backend development and API design.

[Github link](https://github.com/Smailya/-Memory-Matching-Game-C-Console-Application-):

### Java Applications

**Weather App Desktop:**

I developed a Java-based Weather App that provides real-time weather information for any user-specified location. The application fetches data such as temperature, humidity, wind speed, and weather conditions from external APIs, parses JSON responses using JSON Simple, and displays the information in a clean, user-friendly graphical interface built with Java Swing. The app architecture includes a launcher, a GUI handler for user input and display, and a backend class responsible for API communication, data processing, and mapping weather codes to readable descriptions. This project enhanced my skills in integrating Java GUI development with live API data, JSON parsing, and network programming using Java’s HTTPURLConnection. I gained practical experience in building responsive desktop applications that combine frontend and backend components seamlessly, strengthening my understanding of Java Swing, API consumption, and data handling.

[Github link](https://github.com/Smailya/Smailya-Weather-App-Desktop-Java-):

**Online Bookstore:**

In this project, I implemented a comprehensive online bookstore web application featuring user authentication and registration, a dynamic book catalog with browsing and shopping cart functionality, and a secure purchase workflow complete with payment receipt generation. Additionally, I developed an admin interface that allows for efficient management of the book inventory, including adding, updating, and removing books, as well as maintaining detailed sales history and reporting for administrative oversight.The project utilized a robust technology stack including Java (JDK 8+), Servlets, and JDBC on the backend, with HTML5, CSS3, JavaScript, and Bootstrap for the frontend. The database was managed using MySQL, while development and deployment were facilitated through Eclipse EE, Apache Maven, and Apache Tomcat. Throughout the project, I gained valuable skills in Java web application development, MVC architecture implementation, database design and SQL optimization, responsive frontend design, application deployment, and version control using Git

[Github link](https://github.com/Smailya/onlinebookstore-java-):

**Soccer League App***Technologies: Java, GitHub*I developed a soccer scoreboard app that reads match results from text files and calculates league standings using data structures such as ArrayList and HashSet.   
[GitHub Link](https://github.com/Smailya/Java-Advanced/tree/main/SoccerApp/SoccerApp)