SIYANDA NGQOBA

Software Engineer

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PROFILE SUMMARY

Highly motivated Junior Full Stack Developer with a strong foundation in fundamental programming concepts, object-oriented design, web development, and quality assurance. Seeking to leverage my skills in a collaborative environment to build robust, user-friendly applications. Passionate about continuous learning and professional growth in the field of software development.

TECHNICAL SKILLS

- **Programming Languages:**
  - **Python:** Proficient in writing and running code, utilizing basic programming constructs.
  - **Java:** Experienced in object-oriented programming principles, including encapsulation, inheritance, and polymorphism.
- **Testing :**
  - **JUnit:** Familiar with unit testing frameworks to reinforce testing techniques.
- **Web Development:**
  - **Web Technologies:** Knowledgeable in building web applications, focusing on design strategies related to distributed systems and web APIs.
  - **SQL:** Understanding of database persistence in web applications.
- **Software Development Practices:**
  - **Agile Methodologies:** Experience working in collaborative teams and employing agile practices.
  - **Code Refactoring and Analysis:** Familiarity with improving existing codebases and utilizing code analysis tools.
- **Collaboration and Teamwork:**
  - Proven ability to work effectively in teams on group projects, contributing to code quality and software system enhancements.

EDUCATION

WeThinkCode_ | Sept, 2023 - Present

Information Technology

- Relevant Coursework: Fundamentals of Programming, Object-Oriented Programming, Web Applications, Software Development, Algorithm Design, Data Structures, Distributed Systems, Database Management
- In-Progress Modules & Electives:
  - **Systems Integration:** Focuses on connecting different systems and applications to work together seamlessly, emphasizing APIs, middleware, and data exchange protocols.
  - **Cloud Development**: Explores cloud computing platforms and services, including deployment and management of applications in the cloud environment, with an emphasis on scalability and security.
  - **Data Engineering:** Covers the design and construction of data pipelines, data modeling, and data storage solutions, emphasizing efficient data processing and analysis for informed decision-making.

Achievements:
- Top 50 Performer, Semester 1: Recognized as one of the top 50 students based on performance and project submissions.

PROJECTS

Learning with Python
- Developed foundational programming skills, focusing on writing and running code in Python.
- Implemented conditional logic, loops, and functions for solving basic problems.

Making Decisions & Repeating Instructions
- Designed programs that adapted their behaviour based on user inputs, showcasing understanding of conditionals and loops.

Structuring Data & Processing Collections
- Gained experience with Python's compound data types, manipulating structured data to solve practical problems.

Group Project – Code Clinic Booking System
- Collaborated with a team to build a set of command-line tools to automate a booking system for a Code Clinic.
- Demonstrated the ability to work in a team setting and manage collaborative code development.

Java OOP Projects
- Built classes with encapsulation, used inheritance to extend functionality, and applied polymorphism to allow run-time object specialization.
- Implemented Java abstractions, combining objects to express more complex behavior.

Group Project – Robot Worlds
- Implemented a network programming project using sockets and concurrency with Java threads.

- Designed a simple protocol and handled serialization and deserialization of data across the network.

Brownfields Development – Improving an Existing Codebase

- Worked with a team to refactor an existing Java codebase, implementing SQL database persistence and a web API.
- Familiar with acceptance testing, build automation, and code analysis tools.

SOFT SKILLS

- **Collaboration:** Strong team player with experience working effectively in group projects and agile environments.
- **Communication:** Clear and concise communicator, able to explain complex technical concepts to diverse audiences.
- **Problem–Solving:** Analytical thinker with the ability to approach challenges creatively and develop effective solutions.
- **Adaptability:** Quick to learn new technologies and adjust to changing project requirements.
- **Time Management:** Skilled at prioritizing tasks and managing multiple projects to meet deadlines.
- **Leadership:** Demonstrated ability to guide and motivate team members, fostering a positive and productive work environment.

CERTIFICATIONS

- Data Fundamentals
  IBM – Completed [April, 2024]

- Data Analytics
  IBM – Completed [July, 2024]