

MASHILO KGALADI

SOFTWARE DEVELOPER

CONTACT

- 0680418318
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- <https://1mashilo.github.io/Portfolio/>
- 256574/ Hamilton St., Naturena, JHB South.

SKILLS

- Programming Languages: Python, C,HTML
- Databases: PostgreSQL, SQL
- Web Frameworks: Django, Bootstrap
- Data Science Tools: Matplotlib, Pandas, Seaborn, Plotly, Data Structures, and Algorithms
- Cloud Computing Platforms: Amazon Web Services (AWS)
- text editors and IDEs: (VS Code, Vim), shell scripting (Bash)
- Operating system: Linux
- Testing Frameworks: pytest and unittest
- Additional Skills: Git/Github version control systems, API development, RESTful APIs with Postman.

EDUCATION

ALX AFRICA

SOFTWARE ENGINEERING

2023-2024

Vaal University Of Technology

N.D Analytical Chemistry

2015-2018

LANGUAGES

English

PROFILE

Driven and ambitious junior software engineer with a strong desire to excel in backend development. Proficient in Python and C, with hands-on experience building robust and scalable backend systems. Eager to learn and contribute to a team-oriented environment, utilizing my problem-solving abilities and passion for efficient code. Seeking a junior backend role to translate my skills into real-world applications and advance my career in the exciting world of backend development.

PROJECTS

Project Title: FastAPI Template for User Authentication and CRUD Operations

Overview:

- Developed a comprehensive FastAPI backend template, providing a robust foundation for building secure and scalable web applications.
- Integrated essential features including user authentication, CRUD operations, database migrations, and interactive API documentation.
- Key Features:
- Secure User Authentication: Implemented robust registration and login using hashed passwords, ensuring data protection.
- CRUD Operations for Posts: Enabled efficient Create, Read, Update, and Delete functionalities for managing application data.
- Streamlined Database Migrations: Employed Alembic to manage database changes seamlessly, ensuring project maintainability.
- Interactive API Documentation: Utilized Swagger UI and ReDoc to generate user-friendly API documentation, facilitating collaboration and usage.
- Organized Endpoints with Tags: Enhanced API structure and discoverability through effective endpoint categorization

Project Title: Comprehensive Low-Level Programming Projects (ALX Software Engineering Program)

Overview:

- Completed a diverse range of projects to solidify a strong foundation in low-level programming concepts, including: Data structures (linked lists, stacks, queues, trees, hash tables)
- Algorithms (sorting, searching, recursion)
- Linux/Unix system programming
- Memory management (pointers, arrays, malloc, free)
- File I/O
- Debugging
- Static and dynamic libraries
- Shell scripting
- Key Projects:
- Simple Shell: Developed a functional command-line interpreter (shell) in C to navigate the file system and execute commands.
- Data Structures: Implemented various data structures (linked lists, stacks, queues, trees, hash tables) to model and organize data efficiently.
- Algorithms: Optimized code performance through sorting and searching algorithms, applying Big O notation to analyze time and space complexity.
- System Programming: Built proficiency in system calls, file I/O, and process management techniques for Linux/Unix environments.

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KEY COMPETENCIES:

Technical Problem-Solving:

- Analytical Skills
- Critical Thinking
- Debugging Skills
- Learning Agility

Effective Communication:

- Technical Explanations
- Collaboration and Teamwork
- Written Communication
- Active Listening

Project Management and Organization:

- Time Management
- Organization and Planning
- Attention to Detail
- Initiative and Proactive Approach

PROJECTS

Project Title: Diverse Higher-Level Programming Projects (ALX Software Engineering Program)

Overview: 2023

- Completed a range of projects to demonstrate proficiency in Python, JavaScript, SQL, and associated concepts, including:Core Python fundamentals (data structures, control flow, functions, OOP)
- SQL for database interaction
- JavaScript for web development
- Object-relational mapping (ORM)
- Networking concepts
- Key Projects:
- Python Object-Oriented Programming: Developed object-oriented applications using Python's classes, inheritance, and polymorphism.
- SQL Mastery: Demonstrated proficience in SQL queries for database interaction, including data retrieval, manipulation, and analysis.
- Object-Relational Mapping (ORM): Applied ORM techniques to bridge the gap between Python objects and relational databases, simplifying data persistence.
- Web Development Exploration: Gained exposure to web development concepts through JavaScript projects, covering object manipulation, web scraping, and jQuery.

Project Title: Multivendor Django Backend for Digital Marketplace

Overview: 2023

- Developed a comprehensive backend infrastructure using Django to support a multivendor digital marketplace, enabling product management, sales analytics, user registration, and secure payments.
- Key Features:
- Product Management: Implemented a robust system for creating, editing, and deleting products, including features for associating products with sellers and showcasing detailed product information.
- Sales Analytics: Empowered vendors with actionable insights through features that track total sales, generate statistics based on daily, monthly, and yearly trends, and analyze product-specific sales performance.
- User Registration and Authentication: Built secure user management, allowing registration for vendor accounts, authentication for protected actions, and providing a dedicated vendor dashboard for product management.
- Seamless Checkout with Stripe Integration: Ensured secure transactions by integrating the Stripe payment gateway, enabling card payments and a streamlined checkout process.

Project Title: Python Data Visualization Scripts with Matplotlib and GitHub API Integration

Overview: 2023

- Developed Python scripts employing Matplotlib to create diverse data visualizations, covering scatter plots, random walks, and cubic number plots.
- Enhanced project capabilities by leveraging the GitHub API to fetch and analyze data on popular Python repositories.

MASHILO KGALADI

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TO WHOM IT MAY CONCERN,

I am writing to enquire about junior software development roles. Having dedicated the past year to intensive software engineering training at the ALX program, I'm confident my skills and eagerness to learn align perfectly with your requirements.

Through the ALX program, I built a strong foundation in both low-level and high-level programming, mastering languages like C, Python, JavaScript, and SQL. My projects showcase my ability to:

- Develop robust backend functionalities: Crafted a multivendor Django backend for a digital marketplace, supporting product management, sales analytics, user registration, and secure Stripe payments.
- Created a comprehensive FastAPI template with user authentication, CRUD operations, database migrations, and interactive API documentation.
- Demonstrate proficiency in data structures and algorithms: Implemented linked lists, sorting algorithms, and search techniques in C, optimizing code performance for efficiency.
- Created scripts in Python for data visualization using Matplotlib, effectively communicating insights through scatter plots, random walks, and cubic number plots.
- Leverage APIs for data analysis and integration: Integrated the GitHub API in my data visualization project to gather and analyze data on popular Python repositories.
- Familiarity with various APIs and web scraping techniques demonstrates my ability to access and utilize external data sources.

Beyond technical skills, I possess the soft skills crucial for success in a collaborative environment:

- Effective communication: I excel at explaining complex technical concepts clearly to both technical and non-technical audiences.
- Strong problem-solving: My analytical skills and critical thinking approach help me devise innovative solutions to technical challenges.
- Proactive collaboration: I thrive in team settings, actively contributing to project discussions and readily adapting to new workflows.
- Time management: I prioritize tasks effectively, manage deadlines efficiently, and deliver projects on time and within scope.

My portfolio (<https://1mashilo.github.io/Portfolio/>) provides further details on my projects and skills. On GitHub (<https://github.com/1Mashilo>), you can explore the source code and gain deeper insights into my development process.

I am eager to learn and contribute to a challenging and dynamic environment. I am confident that my skills, dedication, and enthusiasm will make me a valuable asset to your team. Please find my resume attached for your review, and I welcome the opportunity to discuss my qualifications further.

Thank you for your time and consideration.

Sincerely,
Mashilo Kgaladi