Ntshuxeko Confidence Mathebula

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SOFTWARE ENGINEER

A dedicated software engineer with over two years of professional experience and a strong aspiration to excel as a full-stack web application developer. I bring expertise in analytics, automation, systems integration, reporting, API development, web and standalone application development. Proficient in core technologies such as HTML, CSS, JavaScript, Python, MATLAB and SQL, as well as frameworks and libraries like React, Next.js, Flask, Pandas and NumPy to build high quality software solutions. My focus is always on delivering scalable, efficient and user-friendly software solutions whilst expanding my knowledge base.

PROFESSIONAL EXPERIENCE

Full-Stack Freelance Developer
JOBVINE | Feb 2024 – Present

- Designed and deployed a fully responsive, full-stack Google Gemini website clone featuring modern UI/UX using React.js and Tailwind CSS.
- Developed and launched a headphone company landing page with seamless animations using JavaScript, Tailwind CSS, Framer Motion, and React.js.
- Created and deployed a real estate landing page leveraging React.js and dynamic animations with Framer Motion.
- Built and deployed a full-stack AI image generator web application utilizing JavaScript, OpenAI, Node.js, Express.js, React.js, and Tailwind CSS.
- Designed and deployed high-performance portfolio websites with animation features using React, JavaScript, Three.js and GSAP.
- Currently developing a full-stack banking application and a fully responsive eCommerce platform, integrating robust backend and modern frontend frameworks like Next.js, Appwrite, and Mongo DB.

Junior Consultant – Software Engineering
Opti-Num Solutions (Pty) Ltd | Aug 2023 – Present

- Designed, developed and deployed reporting dashboard generation web application using MATALB, MATLAB Web App Server, Python and MS SQL Server for automated data analysis and reporting with secure data management features.
- Designed, developed and deployed a high-performance standalone application using MATLAB and Compiler SDK with database integration for reporting and parallel computation.

- Designed and developed simulation and optimisation demos using MATLAB and Simulink.
- Prepared project proposal documents for stakeholder buy-in and approval
- Led technical support team in providing support to customers on product related issues driving customer engagement and fostering seamless collaboration between sales and technical teams.
- Performed class-based software testing using MATLAB's unit testing framework and the TDD philosophy.

Graduate Engineer
Opti-Num Solutions (Pty) Ltd | Feb 2023 – Jul 2023

- Deployed API application using Docker for robust language integration.
- Designed and developed API application for posting and accessing MATLAB data through the web using Python, Flask-RESTful and RESTX.
- Provided technical support to customers on issues related to debugging, knowledge gaps and toolboxes.
- Processed, analysed and built visuals for telecommunications performance data analytics using MATLAB, providing actionable insights into business KPI's.
- Designed, developed and deployed a GUI inspired UI for automated data processing and reporting with data manipulation features using MATLAB, HTML and CSS.
- Designed and developed automated WhatsApp chat application using Python, Ngrok and Meta with database integration for streamlined client communication and secure customer data management.
- Performed class-based testing using Python and MATLAB's unit testing frameworks and the TDD philosophy.

BI Graduate
Fraser Alexander (Pty) Ltd | Sep 2022 – Jan 2023

- Processed, analysed and visualized processing performance data to identify inefficiencies, reducing risks and optimizing performance using Python and MS Excel.
- Designed and deployed a production app using MS Power Apps, improving operational efficiency.
- Re-engineered business processes, driving mine productivity and business profitability improvements.
- Developed and maintained dashboards using Power BI, enabling data-driven decision-making for production output and business performance.

EDUCATION

Bachelor of Science (Honors) in Engineering - Metallurgy and Materials
University of the Witwatersrand | 2021

- **Majors:** Mathematics, I and II, Applied Mathematics Topics, Metallurgical Design I and II, Research Project, Thermodynamics, Hydrometallurgy and Non-Ferrous Pyrometallurgy

- **Relevant Engineering Skills:**
    - Problem-solving and analytical thinking
    - Systems design and process optimization
    - Data analysis and computational tools
    - Research and project management
    - Thermodynamics and metallurgy

SKILLS

Programming and Scripting Languages
- HTML, CSS, JavaScript, MATLAB, Python

Frameworks and Libraries
- Frontend: React.js, Three.js, GSAP, Tailwind CSS, Next.js
- Backend: Flask, Flask-RESTful, RESTX, Express.js

Databases and Data Management
- MS SQL Server, Mongo DB, Appwrite

Tools and Platforms
- VSC, GitLab, GitHub, Docker, MATLAB Web App Server

Software Development Practices
- Test-Driven Development, Object Oriented Programming, code profiling, refactoring and debugging

Application Development and testing
- Full-stack, standalone and web application development, class-based testing

Data and Reporting
- Data visualization and reporting

Soft Skills
- Problem-solving and analytical thinking
- Teamwork, collaboration, and communication

CERTIFICATIONS

- The Ultimate React Course 2024: React, Next.js, Redux & More | *2024 – Present.*

- Data Science & Machine Learning (Theory+Projects) A-Z 90 HOURS | *2024 – Present.*
- Online Masterclass: Presentation Skills | GIBS Business School (Gordon Institute of Business Science) | *2024.*
- Machine Learning with MATLAB | MathWorks | *2023.*
- Object-Oriented Programming | MathWorks | *2023.*
- Crash Course on Python | Coursera | *2022.*
- Python Project for Data Science | Coursera | *2022.*
- Statistics for Data Science with Python | Coursera | *2022.*
- Python for Data Science, AI | Coursera | *2022.*
- Tools for Data Science | Coursera | *2022.*