FOUENANG MIGUEL BRUCE

Full-Stack Developer | DevOps & Network Automation Engineer

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🔗 GitHub: github.com/FMB237 | 🌐 [Portfolio/https://www.linkedin.com/in/fouenang-miguel-bruce-95038528b/]

PROFESSIONAL SUMMARY

4th-year Engineering student at ENSP Douala with comprehensive expertise in full-stack development, Linux system administration, network engineering (CCNA-level), and AI-powered automation. Proven track record building production-ready SaaS platforms, implementing secure VPN solutions, and deploying intelligent applications using local LLMs. Strong foundation in low-level programming (C), network security, and DevOps practices. Fluent in English and French.

TECHNICAL SKILLS

Programming Languages: Python, C (System Programming), Bash/Shell Scripting, JavaScript
Web Development: Flask, SaaS Architecture, SQLite, RESTful APIs, HTML/CSS
AI & Automation: LangChain, Ollama (Local LLMs), RAG Systems, FAISS (Vector DB), Streamlit, n8n Workflow Automation
DevOps & Systems: Linux Administration (Alpine, Ubuntu, Mint), Docker, Docker Compose, CI/CD concepts
Networking: CCNA-level (TCP/IP, Routing, Switching, VLANs), WireGuard VPN, IPsec, Network Security, Packet Tracer
Databases: MongoDB (NoSQL), SQLite, Database Schema Design
Security: iptables/Firewall, VPN Implementation, Access Control, Encryption
Virtualization: VirtualBox, GNS3, VM Configuration
Tools: Git, GitHub, mongosh, systemctl, Vim/Nano, GCC, Make

EDUCATION

Engineering Degree (4th Year) | ENSP Douala, Cameroon
Expected Graduation: [Year]

- Relevant Coursework: Network Engineering, System Administration, Software Development, Cybersecurity

Certifications:

- **Mastering AI Agents Bootcamp** | Udemy, Dec 2025
  Credential: UC-d7b1e9cd-3dfd-4cb2-b48b-d5a156ed6d63 | 2.5 hours intensive
- **MongoDB & NoSQL Databases** | Orange Digital Center Douala, Jan 2026
  3-day intensive bootcamp covering CRUD, Aggregation, and Schema Design

PROJECTS

SaaS Platform with Role-Based Access | Flask, SQLite, Docker, Python

github.com/FMB237/Simple-Flask-Saas

- Architected and deployed full-stack SaaS application with user authentication, role-based dashboards (User/Admin), and file management
- Implemented secure file upload system with 10-file limit per user, download tracking, and deletion capabilities
- Built password reset functionality and last login tracking for enhanced security auditing
- Containerized application using Docker and Docker Compose with Nginx reverse proxy configuration
- Designed modular codebase with separation of concerns (models.py, upload.py, services/)

WireGuard VPN Implementation | Network Security, Linux, Encryption

github.com/FMB237/WireGuard-VPN-

- Configured site-to-site VPN tunnels between Alpine Linux and Linux Mint environments using WireGuard
- Implemented public/private key cryptography for secure peer authentication and tunnel establishment
- Deployed IPsec topology using Packet Tracer for enterprise network simulation and validation
- Documented complete installation workflow including key generation, permission settings, and connectivity verification
- Created comprehensive implementation report with network diagrams and troubleshooting procedures

AI-Powered Multi-Modal Assistant | Python, LangChain, Ollama, FAISS, Streamlit

github.com/FMB237/Ai-Agents

- Architected 4 progressive AI agents evolving from text chat to voice-enabled document analysis with conversational memory
- Implemented RAG (Retrieval-Augmented Generation) system using FAISS vector database for intelligent PDF querying and semantic search
- Integrated speech recognition (STT) and text-to-speech (TTS) for hands-free voice interaction capabilities
- Deployed local LLMs (Qwen2.5:3b via Ollama) ensuring 100% data privacy and offline functionality
- Built interactive web interfaces using Streamlit for real-time AI interaction and monitoring

Linux System Administration Course | Linux, Bash, Docker, iptables

github.com/FMB237/Linux_2026

- Authored comprehensive 22-lesson Linux fundamentals curriculum covering virtualization to containerization
- Automated system administration tasks using Bash scripts for user management, log rotation, and service monitoring
- Implemented network security policies using iptables firewall rules and access control configurations
- Deployed containerized applications using Docker and Docker Compose with multi-container orchestration
- Mastered package management (APT), cron scheduling, process management, and systemd services

C Programming & System Development | C, GCC, Memory Management, Data Structures

github.com/FMB237/C-Programming-Tutorials

- Mastered system-level programming in C covering pointers, memory management, structs, unions, and file I/O
- Implemented algorithms including sorting, searching, and data structure manipulation (arrays, linked lists)
- Developed practical applications: password systems, login authentication, student management systems
- Organized 8-module curriculum (basics, control flow, arrays, pointers, functions, strings, structs, projects)
- Proficient in GCC compilation, debugging, and build automation with Makefile concepts

Network Simulation & Design | Packet Tracer, CCNA, Network Topology

github.com/FMB237/Packet-Tracer-course

- Designed and simulated enterprise network architectures using Cisco Packet Tracer
- Configured network devices (routers, switches) with proper IP addressing, VLANs, and routing protocols
- Implemented network security policies and access control lists (ACLs) in simulated environments
- Created network documentation including topology diagrams and device configuration scripts

MongoDB NoSQL Database Management | MongoDB, mongosh, Aggregation Framework

github.com/FMB237/Mongo_db_Orange_ODC_Course

- Completed intensive 3-day certification program at Orange Digital Center (Jan 2026)
- Designed flexible document schemas for e-commerce and social media use cases with nested structures
- Implemented complex aggregation pipelines for data analytics and reporting workflows
- Optimized query performance using advanced operators ($eq, $gt, $gte, $lt) and indexing strategies

Bash Scripting & Automation Course | Bash, Linux Automation

github.com/FMB237/Bash-Scripting-Full-Course

- Created comprehensive self-authored course covering variables, conditionals, loops, functions, and I/O redirection
- Built practical automation scripts for file condition testing, string manipulation, and process management
- Developed system administration tools for deployment automation and maintenance workflows

NETWORKING & SECURITY EXPERTISE

VPN Technologies:

- WireGuard configuration and deployment (site-to-site, peer-to-peer)
- IPsec tunnel implementation and troubleshooting
- Public key infrastructure (PKI) for secure communications

Network Administration:

- CCNA-level routing and switching (Packet Tracer certified)
- VLAN configuration and inter-VLAN routing
- Network troubleshooting and connectivity validation
- GNS3 and VirtualBox network simulation

Security Implementation:

- Firewall configuration (iptables) and access control
- Secure authentication systems and password policies
- Network traffic encryption and tunneling protocols

WORK EXPERIENCE / INTERNSHIPS

INTERNSHIPS Juillet 2023 - Septemeber 2023 as junior network assistant in Matrix telecom Douala Juillet 2025 - September 2025 assitant stock equipement manager in Camusat Cameroon Douala

LANGUAGES

- **English:** Fluent (Professional working proficiency)
- **French:** Fluent (Native/Bilingual proficiency)

ADDITIONAL INFORMATION

- **GitHub Portfolio:** github.com/FMB237 (12+ repositories, all publicly documented)
- **Interests:** Open-source contribution, network security, AI ethics, automation, low-level programming
- **Availability:** Available for internships and full-time opportunities in DevOps, Networking, or Full-Stack Development