

Ahmed BOUHLAL

AI Engineer | ML Researcher | Embedded System Developer

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SUMMARY

Self-driven AI student at EST Tétouan with hands-on experience in deep learning, Verilog design, and intelligent systems. Known for building neural optimizers, embedded ML hardware, and real-time AI tools. Passionate about combining AI theory with system-level engineering to solve impactful problems in automation, research, and smart devices.

PROFESSIONAL EXPERIENCE

Jul 2025 – Present

AI intern

D3Soft intern, Tangier, Morocco

- Built 40+ modular AI tools using Python and LLaMA 3 (CLI + GUI based).
- Created WDW binary decoder and smart resume validator using AI.
- Developed WinDev Bug Detector (100k+ samples, DL-based).
- Designed adaptive Verilog regression model with dynamic learning rate.
- Built automation pipelines for KPI prediction and AI analysis.

Freelance AI Engineer | Developer

2023 – Present

- Built a real-time gaze & emotion detection system using MediaPipe + FER-2013.
- Engineered Physics Optimizer V4: a neural optimizer using momentum, forces, damping.
- Developed a 2.5D Python game engine with Bluetooth PvP and skill scripting.
- Created smart AI bug analyzers, KPI generators, and automation tools for small businesses.

PROJECTS

- Physics Optimizer V4: Custom deep learning optimizer based on physical principles.
- AI Assistant CLI: 40+ skill modular AI assistant, supports ChatGPT, Ollama, search, system tools.
- Resume Validator: AI model + regex tool to validate WDW CV formats.
- 2.5D Game Engine: Python-based engine with pixel render and Bluetooth PvP.
- Emotion Tracker: Face & emotion ML system (TensorFlow, FER-2013).

CORE COMPETENCIES

- AI Tool Development
- Research-Level Deep Learning Understanding
- Verilog & Embedded System Design
- Problem-Solving with AI + Hardware Integration
- Modular Architecture (CLI, GUI, AI assistants)
- Agile Team Collaboration & Technical Writing

SOFT SKILLS

- Rapid Learning & Adaptability
- Independent Execution
- Creative AI Thinking
- Strategic Problem-Solving
- Discipline & Deep Focus

EDUCATION

DUT in Artificial Intelligence

EST Tetouan, Morocco

2024 – 2026

ACHIEVEMENTS

- Built 40+ AI tools in 1 month
- Created 100k+ labeled bug datasets
- AI intern of the month
- Verilog regression logic from scratch

TECHNOLOGIES & PLATFORMS

- Python, Bash, Verilog, C
- TensorFlow, scikit-learn, OpenCV, MediaPipe, YOLOv8
- Git, Github, Docker, VSCode, Pop!_OS
- Jupyter, Bash CLI, Modular GUI

LANGUAGES

- Arabic (Native)
- English (Advanced)
- French (Beginner)