JomedAI: A Fully Deployed Artificial Intelligence Platform Integrating 23 Independent Deep Learning Models Across 13 Organ Systems, 1,808 Validated Clinical Statistical Scoring Models, and AI-Powered Drug-Drug Interaction Detection for Early Disease Diagnosis, Interactive Clinical Reasoning, and Medication Safety

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Every year, 795,000 people die or suffer permanent disability — not from untreatable disease, but from a missed diagnosis. A patient takes a common painkiller alongside a daily prescription, unaware the combination can trigger organ failure or death. A tumor grows silently for months because no tool existed to catch it in time. These are not rare exceptions. They are the daily reality of modern medicine — and they are preventable. To address this, we developed JomedAI — an integrated agentic AI medical platform. We trained 23 independent CNN-based deep learning models across 13 organ systems using publicly available medical imaging and biomarker datasets, applying EfficientNet-B4, ResNet, and YOLOv11 CNN architectures for 31-class dental panoramic detection. We integrated 1,808 validated clinical scoring models, a drug-drug interaction checker built on DDInter2, and fine-tuned Qwen3-VL-235B via LoRA as MedAI, showing significant improvements on MedQA-USMLE, PubMedQA, and MedMCQA (McNemar's test, $p<0.05$). All 23 models were validated on 160,447 independent samples. Three achieved perfect micro-F1=1.000: Tuberculosis X-ray (n=1,000), CT Kidney (n=1,245), Uterine Carcinoma (n=73). Highlights: PCOS=0.999, Hypothyroid=0.9989, Liver Fibrosis=0.9865, Brain Stroke=0.980, Pancreatic Cancer=0.973, Retinal OCT=0.977, Diabetic Retinopathy=0.944 on 90,000 images, Dental YOLO=0.877 across 31 findings. MedAI — an agentic chatbot — discusses results of every tool: diagnostic models, drug interactions, and clinical scores interactively with the physician across multiple turns, rather than simply displaying a number. Complete. Validated. Deployed across web, desktop, and mobile. JomedAI is not an experiment — it is a medical system built because lives depend on getting this right.

Awards Won: