MOHAMED KAMEL

Cybersecurity Student

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EDUCATION

University of Wollongong, Dubai, UAE - 2022 - 2025

Bachelor of Computer Science (Cybersecurity)
- Designed a MySQL Database for a hospital company, organizing patient and staff information.
- Applied MySQL, PostgreSQL and MongoDB in projects focused on database design.

EXPERIENCE

CharCentric – 2024 – 2025

Personal Projects – 2024 - 2025

Bespoke A&E – AI-Powered Architecture & Engineering Platform (2025)
- Developed a full stack platform using Next.js, Prisma and PostgreSQL. Hosted on Railway, enabling architects and engineers to collaborate and submit RFPs with AI assisted recommendations.
- Built an AI CV Parser using OpenAI API and LangChain, capable of parsing resumes and prefilling sign up data.
- Integrated AWS S3 for secure file storage and retrieval of documents and user uploads.
- Implemented authentication, user dashboards and analytics to support proposal management and tracking.

SafeOps – AI-Based Workforce & Safety Monitoring System (2025)
- Developed an AI driven PPE detection and facial recognition system for warehouses using YOLOv8 and Arc Face, deployed for real time workforce safety monitoring.
- Integrated ByteTrack and ReID for multi camera worker tracking and identity consistency across views.
- Trained YOLOv8 models on AWS EC2 using public datasets to automate safety violation reports and attendance logging.
- Applied OpenCV for video frame processing, improving accuracy and latency.

Multi-Tool AI Assistant (2025)
- Developed an AI bot with dual-model intelligence that automatically selects between fast (Gemini 2.0 Flash) and smart (Gemini 2.5 Pro) models based on user prompt.
- Built advanced memory system with PostgreSQL storing user preferences, personality traits, relationship notes, interaction history, learned behaviors, and consciousness streams across 11 database tables.
- Implemented image generation capabilities using Imagen 3.0 via Vertex AI
- Developed video generation functionality that produces realistic video content from text prompts
- Built web browsing and automation features with security controls that navigate websites, detect obstacles like CAPTCHAs and provide detailed explanations without bypassing protections.
- Integrated Serper API for real-time internet search, enabling the bot to retrieve and synthesize information from the web for user queries.
- Built production-ready async architecture using Python to handle multiple requests without blocking.

Cybersecurity Projects - 2025
- Performed penetration testing simulations using Kali Linux, Metasploit and vulnerable testing environments.
- Exploited vulnerabilities in DVWA (XSS, SQL injection and brute force).
- Used OWASP ZAP for vulnerability scanning.

- Conducted ARP spoofing, DNS poisoning and packet analysis with Wireshark.
- Gained experience in hardening AI systems that interact with external memory and third party APIs.

SKILLS

1. Database Management
- MySQL
- MongoDB
- PostgreSQL

2. Programming Languages
- C++
- JavaScript
- HTML
- Python

3. Website Building
- Next.js
- React.js
- Tailwind CSS
- Prisma

4. Network Modelling using Packet Tracer   5. Cloud & DevOps
- AWS EC2
- AWS S3

6. AI / Machine Learning Systems
- YOLOv8(Object Detection)
- Arc face(Facial Recognition)
- OpenCV(Computer Vision)
- Deep stream SDK
- Lang chain
- OpenAI API
- Gemini API
- Redis & Zep (AI Memory)

7. Cybersecurity Tools & Techniques
- Kali Linux
- Metasploit
- OWASP ZAP
- Wireshark
- SQL Injection, XSS and Brute Force
- ARP Spoofing and DNS Poisoning
- Prompt Injection Defence
- Input/Output Validation

Languages
- English (IELTS score 8.0)
- Arabic (Native)