

Malik Hassan Almalki

Computer Vision & Full-Stack Developer

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SUMMARY

Computer Science student (expected graduation October 2026) seeking a Co-operative Training position. Experienced in full-stack web development and applied computer vision, including building a real-time object detection system with YOLO and RTSP video integration. Strong foundation in programming, web technologies, and hardware troubleshooting.

EDUCATION

Bachelor of Science in Computer Science

Fahad Bin Sultan University - Expected Graduation: October 2026

Relevant Coursework: Artificial Intelligence, Design and Analysis of Algorithms, Data Structures and Algorithms, Database Systems, Software Engineering, Computer Networks

PROJECTS

PPE Compliance Detection System - Graduation Project

- Designed and built a real-time Personal Protective Equipment (PPE) compliance detection system using YOLO object detection models to identify safety violations such as missing helmets, vests, and gloves.
- Integrated RTSP camera feeds for continuous real-time video processing and violation detection.
- Developed a full-stack web application (backend and frontend) to visualize detections, manage camera feeds, and report compliance status.
- Applied core computer vision techniques including image filtering, object detection pipelines, and model integration into a production-style application.

Point of Sale (POS) System

- Built a Point of Sale (POS) system for recording sales transactions, generating reports, and performing end-of-day closing (till reconciliation).
- Developed the frontend using React with TypeScript (TSX) for a responsive, component-based user interface.
- Used JSON-based data structures to manage sales records, transactions, and daily reports.
- Implemented sales reporting features to summarize daily revenue and transaction activity for end-of-day closing.

TECHNICAL SKILLS

Programming Languages: Python, JavaScript, C++, SQL

Full-Stack Development: HTML, CSS, JavaScript, TypeScript, React, Node.js, REST APIs

AI and Computer Vision: YOLO Object Detection, OpenCV, Image Processing and Filtering, Real-Time Video Analytics

Tools and Platforms: Git, RTSP Streaming, Linux, VS Code

Additional Technical Knowledge: Electrical fundamentals and circuit analysis, hardware diagnostics and troubleshooting

LANGUAGES

Arabic (Native), English (Professional Working Proficiency)