Tan Yi Xin

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Education Background

Bachelor of Computer Science (Honours) – CGPA: 3.63/4.0
(Universiti Tunku Abdul Rahman: 2022-2025)

- Focus: Artificial Intelligence, Deep Learning, Computer Vision

Foundation in Science (Technological Science) – CGPA: 3.66/4/0
(Universiti Tunku Abdul Rahman: 2021-2022)

Malaysian Certificate of Education (SPM) – 8As

Technical Skills

- **Programming Languages**: Python, Java, C++, JavaScript, PHP, R
- **Machine Learning/ Deep Learning**: TensorFlow, PyTorch, Hugging Face, CLIP, YOLO
- **Data Science & Analytics:** Pandas, NumPy, Matplotlib, Scikit-learn, R
- **Security Tools & Concepts:** Kali Linux, Wireshark, Nmap, Network Protocols, Secure System Design
- **Web & API:** HTML5, CSS3, Flask, Odoo, PHP, AJAX, RESTful API, JSON
- **Databases**: MySQL, MongoDB (NoSQL), ER Modeling
- **Tools & Version Control:** Git, GitHub, Docker (Basic), VS Code, Jupyter Notebook
- **Concepts:** OOP, DSA, Agile Scrum, Secure System Design, Real-Time Computer Vision

Project Experience

1. **Real-Time Deep Learning-Based Face Detection and Recognition with Integrated Liveness Detection for Attendance System (FYP) | (2025) |** *Python, TensorFlow, Flask, OpenCV, Dlib, Mediapipe, SolvePnP*
   - Developed a real-time facial recognition system with blink, smile, and head movement liveness detection.
   - Implemented end-to-end pipeline for image processing, face detection, and attendance automation.
   - Optimized model performance for low-latency real-time deployment.
2. **Staff Uniform SOP Compliance Analysis | (2025) |** *Python, YOLOv11n, Swin-T, CLIP, OpenCV, Pandas*
   - Built a hybrid deep learning pipeline: detect people → extract top-wear → classify uniform compliance.
   - Applied few-shot learning with CLIP for dataset preparation and improved generalization on limited samples.
   - Evaluated staff uniform compliance with Standard Operating Procedures (SOP) using visual analytics and report generation.
   - Combined multi-model predictions to classify staff into compliant (polo/vest) or non-compliant categories.
3. **Auto-Researcher AI: Autonomous Content Transformation Pipeline | (2025) |** *Python, PyTorch, Hugging Face Transformers, ffmpeg, Whisper, LLM (microsoft/phi-2)*
   - Developed multi-agent architecture (Summarizer, Q&A, Insight Extractor) orchestrated in a central pipeline.
   - Automated audio extraction, transcription, and structured content generation from unstructured data.
   - Enabled generation of slides, summaries, and Q&A pairs automatically from YouTube videos.
4. **AI Resume Analyzer with Job Street Job Matcher | (2026) |** *Hugging Face Transformers (4-bit quantized LLM for reasoning/analysis), Web Scrape (BeautifulSoup +Selenium), Playwright*
   - Develop for resume parsing, skill extraction & job matching.
   - Integrated Job Street scraping to rank candidates against relevant job postings and generated structured CSV outputs for candidate-job matching scores and reports.

👩‍💼 Working Experience

Vision AI Developer
BlueTrack Analytics (Invoke) | 2025 - Present

- Developed computer vision pipelines for CCTV surveillance analytics.
- Assisted in designing AI models for real-time object and behaviour detection.

Software Engineering Intern
Axcell Solutions, Kampar, Perak | Oct 2024 – Jan 2025

- Contributed to Loan Management System development on Odoo ERP.
- Collaborated in Agile sprints, conducted testing, and prepared technical documentation.
- Implemented modular features to improve system scalability and maintainability.