

MEGAT IRFAN ZACKRY

Software Engineer | Automation Developer

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PROFESSIONAL SUMMARY

Software Engineering graduate with hands-on experience building Power Platform automation for a Big Four professional services firm and architecting LLM-integrated community platforms. Comfortable across the stack, from API integrations and cloud flows to full web application development. Currently pursuing a Master of Philosophy researching LLM-based software testing, with a strong focus on AI capability boundaries, data quality standards, and automated content evaluation.

SKILLS

Languages & Databases: C#, Python, Java, JavaScript, TypeScript, SQL, PHP, C++, HTML, CSS, Dart

Frameworks & Libraries: ASP.NET, Entity Framework, React, Next.js, Node.js, Django, Spring Boot, Flutter, Bootstrap, jQuery

Platforms & Tools: Microsoft Power Platform (Power Apps, Power Automate, AI Builder), AWS, Microsoft SQL Server, Git, Telegram Bot API

Practices: Agile / Scrum, CI/CD, MVC Architecture, RESTful APIs, Prompt Engineering, Automated Content Moderation

EXPERIENCE

Power Platform Developer Intern

KPMG PLT, Petaling Jaya, Malaysia | Sep 2023 - Feb 2024

- Built the Smart Locker Power App (Power Apps, Power Automate) that automatically notifies IT staff the moment an item is dropped off, replacing a manual notice process.
- Developed the Sentinel Lead Partners Request Action Reminder, a cloud automation that generates and sends personalised reminder emails from pending-action data, replacing a fully manual, one-by-one process.
- Maintained the firm's Expense Claim System (C#, SQL Server) and its AI Builder document-extraction pipeline, which processed submitted claims at roughly 94 percent accuracy.

PROJECTS

Master's Thesis: Quantum-Inspired Agentic Test Case Prioritization | Universiti Teknologi Malaysia | In Progress

- Designing a data-independent test case prioritization (TCP) framework to solve the cold-start problem in regression testing.
- Leveraging Large Language Models (Gemini, Claude, ChatGPT) for semantic analysis of code changes to dynamically extract fault risk and complexity features.
- Developing a classical quantum-inspired depolarizing channel model to rank test cases efficiently, bypassing the computational bottlenecks of traditional metaheuristic search algorithms like PSO.
- Engineered a fully automated GitHub Actions and Google Apps Script pipeline to extract code diffs via webhooks and trigger Python-based LLM evaluation scripts.
- Authored a Systematic Literature Review (SLR) on the scalability and effectiveness trade-offs of AI-driven TCP approaches.

Final Year Project: AI-Integrated Community Automation & Content Moderation Platform

- Scaled a Final Year Project into a production-grade, semi-anonymous community platform for 12,000+ subscribers using a modular Google Apps Script architecture.
- Designed and implemented external shared libraries for robust Telegram API integration, caching, and state management.
- Built a real-time content moderation engine utilizing regex-based detection to automatically redact Personally Identifiable Information (PII), filter profanity, and evaluate URLs before publication.
- Engineered a conversational AI assistant powered by Gemini 3.5 Flash Lite. Developed comprehensive system instructions and prompt constraints to enforce strict output formats (Telegram rich-message HTML) and evaluate edge cases in multi-turn conversations.
- Developed a secure identity verification pipeline linked to university emails via OTP, balancing user anonymity with platform accountability and safety standards.

Cleaning Business Website: End-to-End Booking Platform

- Designed and built the customer-facing booking site solo using React (TanStack Start) and Tailwind, with Zod-validated forms, calendar-based scheduling, and OTP verification.
- Deployed and operate the full stack on Cloudflare Pages and Workers, including custom email automation and routing backed by a self-hosted SMTP server, all on a single production domain.

EDUCATION

Master of Philosophy, Software Engineering | Universiti Teknologi Malaysia | In Progress

Bachelor of Computer Science, Software Engineering | Universiti Teknologi Malaysia | 2020 - 2025 | CGPA: 3.58 / 4.00

UTM Foundation | Kolej Mara Seremban | 2019 - 2020 | CGPA: 3.96 / 4.00

CERTIFICATIONS

Azure AI Fundamentals (Microsoft) | CS50: Introduction to Computer Science (Harvard) | Basics of Quantum Information | Near Academy Certificate

LEADERSHIP AND ACTIVITIES

Vice President, PERSAKA | Head of Activity, CyberX | Active Member, Google Developer Student Clubs | 1st Place Winner, Fundraising Carnival Hackathon | Lead Speaker, Website Coding Workshop

LANGUAGES

English (Fluent), Malay (Native), Japanese (Basic), Arabic (Basic), Mandarin (Basic)