

MORGAN LEE

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Deployed demos with passwords under **Featured Personal Projects**

CORE SKILLS

- **Programming Languages:** Python, Scala
- **Applied AI Engineering:** Flow Engineering, Prompt Engineering, RAG
- **Libraries:** Spark (Scala), Langgraph, Langchain, FastAPI, Pandas
- **Other Technical:** AWS, System Design, LORA Fine-Tuning, Langsmith Tracing

RECOGNITION

- Experimented with the possibility of LLM-Enabled Coercive Interrogation, with the findings leading to a full article written by *The Register* as an early signal the threat of scalable AI interrogation automation: https://www.theregister.com/2025/05/21/llm_torture_tools/ (original substack: <https://morganjlee.substack.com/p/llm-enabled-coercive-interrogation>)

FEATURED PERSONAL PROJECTS (APPLIED AI ENGINEERING)

HackTheWitness (Solo Developer - AI/Architecture/Software) [<https://hackthewitness.com>]:

- AI-powered voice-based cross-examination simulator for adversarial legal reasoning training, implementing verbal reasoning as a combat loop, built from litigation experience
 - Engineered a real-time, voice-controlled interaction loop leveraging Elevenlabs Conversational AI for adversarial interrogation emulation
 - Architected serverless production system (Lambda, API Gateway, SQS, S3, CloudFront)
 - Developed adversarial LLM agents (oversharing, evasion, condescension)
 - Witness behavioural logic and evaluation logic developed entirely through extensive system prompting
 - Implemented webhook-based evaluation resistant to prompt injection by isolating the evaluation system and labelling the transcript from each cross-examination
 - Login credentials:
 - Username: [Any - only used for logging]
 - Password: D3vP4ss!

TalkToMorgan.dev (Solo Developer) [<https://talktomorgan.dev>]:

- Personal contact website containing conditional RAG chatbot designed for narrative control, prompt injection resistance, and perception shaping.
 - Uses two separate vector databases organised thematically for clean, relevant retrieval
 - Agentic retrieval behaviour steered through system prompt
 - Hardened against basic prompt injection and policy puppetry through system prompt
 - Built as a psychological sandbox to test effectiveness of AI at frame-shifting and identity-consistent behaviour
 - Chatbot password: Super_G3heimn1s

PROFESSIONAL EXPERIENCE

Applied AI Engineer / Data Engineer, Synpulse8, Singapore (April 2024 - Present)

- Built Spark-Scala data processing framework with YAML-driven config
- Developed core finance logic (FIFO, P&L algorithms)
- Built and deployed LLM-based portfolio narrative generation system using AWS Bedrock (Claude 3.5 Sonnet) and Lambda. The narrative generation is conducted by hierarchically processing source data, dynamically selecting from a library of 12 system prompts depending on asset class and processing stage.
- Designed a pair of agentic RAG-driven compliance chatbots (to account for jurisdictional differences between Switzerland and Singapore). RAG and internet search behaviour is controlled through extensive system prompting. The underlying model of both chatbots is GPT 4.1. Both systems use three separate vector databases split into legislation, regulatory publications, and case law.

- Deployed the Singaporean version of the compliance chatbot on AWS using Cloudfront, Route 53 and App Runner. The Singaporean chatbot is behaviourally steered through the system prompt to adhere to the hierarchical nature of legal authority, with acts of parliament overriding lower level regulations.
- Documented and circulated a collection of prompting techniques derived from attacks on LLMs which have proven useful for behavioural steering, for example, dramatic role definitions and warnings of harm to humans.

Associate, Ling Law Corporation, Singapore (December 2019 – March 2023)

- Litigated commercial, criminal, and IP cases
- Lead counsel on interlocutory appeal: *Systematic Airconditioning v Ho Seng Ken* [2023] SGHC 10

EDUCATION

- Data Science Immersive, General Assembly
- Singapore Bar Examinations, Singapore Institute of Legal Education
- Master of Laws in Intellectual Property and Information Law, King's College London (Grade: Pass with Merit)
- Bachelor of Laws, SOAS, University of London (Grade: 2:1)