

CONSTANTINE SAMARIKAS

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EDUCATION & RESEARCH

The University of Manchester, Alliance Manchester Business School, UK Sep 2023 – Jun 2026

BSc (Hons) Information Technology Management for Business | Final-year average 70% (First-class range)

Dissertation (First Class): Operationalising Regulatory Red Flags for Bitcoin Anti-Money Laundering Detection

- Turned the six FATF virtual-asset red flags, which regulators apply with context and judgment, into 35 measurable features across 8.3M transactions in 24 quarterly snapshots (2019–2024), using the Cardiff University Bitcoin Database.
- Layered pipeline (rule-based pseudo-labelling → K-Means/DBSCAN clustering → LightGBM): 0.96 macro F1 on a balanced evaluation set of 225,722 transactions (the 149,128 confirmed labels plus a sample of unmatched transactions presumed licit); 0.93 on the confirmed labels alone, roughly 12 points above the strongest combined rule baseline; matched or exceeded published Elliptic++ results.
- Rule firing tracked enforcement history: mixing-related flags rose from 13.5% to 58.6% by Q3 2023, a year after the Tornado Cash sanctions, then fell to 7.5% after the Samourai and Wasabi actions. Identified a scope limit: weak on illicit activity that leaves no structural pattern.
- Findings delivered through a seven-page Streamlit dashboard; code public at github.com/MokeMaoos/Bitcoin_Tracker.
- **Selected marks:** Database Design 81, Fundamentals of Data Analytics (statistics) 76, FinTech Revolution 76, Digital Economy: Platforms & AI 70.

EXPERIENCE

Digital Forensics Intern | Deloitte Business Solutions S.A., Athens, Greece Jun 2025 – Aug 2025

- Supported two corporate fraud investigations: reviewed large email and document sets for evidence and built a signal-analysis tool that detected splices in audio recordings submitted as evidence.
- Selected for the firm's AI team; one of two interns building agents (email and document-scanning assistants) on the in-house LLM.

Vendr (vendr.pro) | Personal project Jun 2026 – Present

Free collection, pricing and trading app for trading card collectors and card shops

- Built solo, from idea to a working app on iOS, Android and the web; the web app is live.
- Nightly data pipeline (TypeScript, GitHub Actions, Supabase/PostgreSQL) merges European and US price feeds for more than 38,000 cards; price changes are cross-checked between sources.
- Maintained by Claude agents: one writes changes, another reviews them, and nothing ships without my approval. Shipped price alerts, collector trading, an on-device ML card scanner and automated tests across the app, pipeline and database.

Student Consultant | Live client projects, Alliance Manchester Business School Jan 2024 – Mar 2025

- **Lloyds Banking Group:** sole developer in a team of four of a financial literacy app (C#, MySQL). **Procter & Gamble:** led product development of a working AR customer-support prototype in a team of five. **Ford:** UX research for a vehicle-subscription service.

Office Assistant & Developer | Astro Diner, Los Angeles, CA Jun 2024 – Sep 2024

- Built a point-of-sale and inventory app for the staff (C#, MySQL), linked to a real-time mobile ordering app, with a sales view of top items and frequent order combinations.

SKILLS

Research & ML: Python (pandas, scikit-learn, LightGBM, XGBoost), clustering, classification, model evaluation, feature engineering, R, Streamlit

AI & engineering: Claude Code (multi-agent setups, hooks, headless runs), LLM agents, TypeScript/JavaScript, Node.js, SQL (PostgreSQL, MySQL), React Native, GitHub Actions

Languages: English (native), Greek (native), Spanish (intermediate)