DAVID LEVY

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EDUCATION

University of Edinburgh   *Sep 2022 – Jun 2026 (Expected)*
BEng (Hons) Electronics & Computer Science   *Edinburgh, UK*
- **Dissertation:** Bayesian Teaching for Persistent User Modelling in LLMs – extending DeepMind's Bayesian teaching framework to infer Big Five personality traits via fine-tuned Llama models across 3,125 synthetic users.
- **Relevant Courses:** Machine Learning, Algorithms & Data Structures, Probability & Statistics, Linear Algebra, Signal Processing, Distributed Computing.

EXPERIENCE

Bloomberg LP   *Jun – Aug 2025*
Data Management Professional   *London, UK*
- Engineered automated data pipelines in Python and Apache Spark to integrate multiple internal sources, reducing processing time by 98% and enabling faster daily reporting across the London office.
- Implemented anomaly detection and reconciliation logic across large-scale financial datasets, improving data quality for London-wide decision-making.

The Full Spectrum (HealthTech Startup)   *Jul 2024 – Mar 2025*
Operations Manager   *Cape Town, South Africa*
- Drove product development and user research for a healthtech platform supporting parents of autistic children; conducted user interviews and iterative prototyping to refine core features.
- Crafted go-to-market strategy including user outreach campaigns and investor pitch materials, gaining end-to-end startup lifecycle exposure.

Solenya   *Jun 2024*
Paid Researcher   *Cape Town, South Africa*
- Investigated zero-shot recommendation systems (ZSRS), boosting new-user recommendation accuracy by 15%; synthesised findings into actionable technical reports.

Addionics   *Jul – Aug 2023*
Data Analyst
- Automated data collection, cleaning, and visualisation of battery test results in Python, streamlining reporting for R&D decision-making.

PROJECTS

Bayesian Teaching for LLM Personalisation   *2025*
- Extended Google DeepMind's Bayesian teaching framework (Qiu et al.) from task-specific preferences to personality trait inference using the Big Five model.
- Architected a three-stage pipeline: synthetic user generation, GRM-based questionnaire simulation, and Bayesian teacher trace construction across 3,125 user profiles.
- Fine-tuned Llama models using LoRA, achieving 51% accuracy matching Bayesian oracle performance for personality trait prediction.

LEADERSHIP

Edinburgh AI Society (edinburghai.org)   *Jan 2023 – Present*
Funding Lead
- Scaled society from 30 to 400+ members; secured sponsorships from leading AI companies including Anthropic, managing the full funding pipeline.
- Organised technical talks and industry networking events with 100+ attendees per session.

SKILLS

Languages: Python, Java, C, Haskell, SQL
ML & Data: PyTorch, Hugging Face Transformers, Pandas, NumPy, Scikit-learn, MATLAB
Infrastructure: Apache Spark, AWS, Git, Linux
Methods: Bayesian inference, deep learning, NLP, distributed computing, statistical analysis