MASTER FORENSIC SCIENCE - LITERATURE THESIS

Title	: Reviewing AI Tooling in Forensic Decision Support Across the Criminal Justice Chain
Keywords	: AI tooling, decision support, forensic science
Forensic Expertise Area	: Decision support
Start Date	: ASAP
Host Institute	: Amsterdam University of Applied Sciences
Department/Team	: Research Group Forensic Science
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UVA Examiner	: ?
UVA Coordinator	: Arian van Asten/Yorike Hartman

Short Description

This literature-master's thesis invites a comprehensive review of how modelling choices—including feature selection, uncertainty quantification, domain-knowledge integration, and weighting of evidence—shape AI outputs in the forensic and criminal justice context.

This thesis should also draw parallels with high-stakes fields—pre-trial risk algorithms, emergency response triage, aviation autopilot assist systems—to critically assess how modelling standards, fairness, calibration, and transparency are set and whether forensic AI adheres to these best practices. The outcome should be a thematic literature synthesis that identifies key modelling pitfalls, best practices, and avenues for improving reliability in the criminal justice application of AI.

Key References

1) https://uitspraken.rechtspraak.nl/details?id=ECLI:NL:RBGEL:2024:3636
2) https://washingtondc.jhu.edu/news/ai-in-forensics/
3) https://journals.upress.ufl.edu/fa/article/view/2827
4) https://www.tandfonline.com/doi/full/10.1080/29974100.2025.2503343

Required/Recommended skills and expertise

- Understanding of AI
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