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AI for Predicting Domestic Violence Recidivism in Portugal

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Abstract

Domestic violence remains a pressing concern in Portugal, demanding more effective approaches for recidivism prediction, despite legislative efforts and current risk assessment tools. This project proposes the application of Artificial Intelligence (AI) to enhance this prediction, specifically within the Portuguese context and relying exclusively on information from the Domestic Violence Risk Assessment Forms (Ficha RVD-R).

Our research aims to develop and validate predictive models (regression or binary classification). These models, through the structured analysis of Ficha RVD-R data, will more accurately identify high-risk individuals. The primary objective is to optimize resource allocation and prioritize interventions, thereby protecting victims and managing aggressors more effectively. Crucial to this endeavor is the collaboration with the Public Administration to access anonymized data and ensure real-world applicability.

The proposal includes the conceptual design of a predictive system, which could materialize as a private dashboard or chatbot for law enforcement agencies. This system would be powered by an interface utilizing Flowise/Langflow and a vector database for the Ficha RVD-1L. This technological advancement, leveraging accessible AI, seeks to reduce the recurrence of domestic violence and contribute to a safer and fairer society.