Automated System to Prevent Social Security Fund Misuse by Identifying Deceased Beneficiaries

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Abstract: Ensuring secure and convenient access to essential services like pension retrieval is crucial in today's digital age. Traditional authentication systems such as passwords and PINs are increasingly vulnerable to fraud and identity theft. This project proposes a Web Biometric Credentialing System that employs fingerprint and facial recognition technologies to enhance the security of pension disbursements. The system leverages Auth0 for secure identity and session management, alongside the WebAuthn API for biometric authentication. By allowing pensioners to verify their identity using biometric data, the solution strengthens data security and user experience. It restricts access to sensitive financial information to only authorized users and streamlines pension retrieval after successful biometric verification. The system also contributes to reducing fraud, unauthorized access, and operational inefficiencies within social security frameworks.

Keywords: Game theory, incentives, security economics, retail payment security, MFA, JWT, Auth0 SDK.