**CSI 4999 MIM System Software (MIMS) Project Report**

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**Project Vision:**

Background:

In 2016, law enforcement reported over 600,000 missing children nationwide. At this time, there remain over 80,000 missing from the original total. While this number increases each year, it is paramount to reduce the response time for public awareness of those that have been: (1) reported missing or (2) lured into human trafficking. In addition, the rise of human trafficking burdens the system for the half- million law enforcement (LE) officers nationwide. Unfortunately, missing children and victims of human trafficking are often unreported. Many parents are discouraged by the processes from making an official report to local authorities. Resources for retrieving proper investigatory leads are thereby limited for LE to launch proactive investigations. Instead, LE personnel are isolated to a reactive investigation that may sadly lead only to a recovery of the missing/exploited victim’s remains. It is essential that families of those that have gone missing or been a victim of human trafficking should be given the advantage of online digital tools to help in locating their missing loved ones. This project will address current deficiencies in publicizing information about missing persons and then facilitate enlisting of the public’s assistance in trying to locate these children.

Socio-economical Impact, Business Objectives, and Gap Analysis:

Security and ethical Concerns:

The information which will be collected by this application, especially the personal information of the victims and their families, is sensitive. It is therefore imperative that the application strikes the correct balance between informing the public to help locate the victim and protecting the privacy of all innocent people involved. The availability of such information must be limited and security measures to protect it implemented. We will accomplish this by allowing different levels of access for different users, so the family of the victims can share information with law enforcement that is not available to the general public. We must also ensure that the front-end code is secure and non-exploitable, and that querying of the database is done in such a way that a user cannot force application to return information that they shouldn’t have access to.

Also, when gathering information about the victim’s contacts, we must be sure to stay within the bounds of the law. Accessing certain information from third-parties, such as cell service providers, can introduce legal problems and may require a warrant[1]. Therefore, we must ensure the application will only obtain information through legal avenues, such as voluntary input by families of victims.

Glossary of Key Terms:

**Project Execution and Planning:**

Team Information:

Our team consists of five members.

Tools and Technology:

Project Plan:

Best Standards and Practices:

**System Requirement Analysis:**

Function Requirements:

Non-functional Requirements:

On-Screen Appearance of landing and other pages requirements:

Wireframe designs:

**Functional Requirements Specification:**

Stakeholders:

Actors and Goals:

User stories, scenarios and Use Cases:

System Sequence / Activity Diagrams:

**User Interface Specifications:**

Preliminary Design:

User Effort Estimation:

**Static Design:**

Class Model:

System Operation Contracts:

Mathematical Model:

Entity Relation:

**Dynamic Design:**

Sequence Diagrams:

Interface Specification:

State Diagrams:

**System Architecture and System Design:**

Subsystems / Component / Design Pattern Identification:

Mapping Subsystems to Hardware (Deployment Diagram):

Persistent Data Storage:

Network Protocol:

Global Control Flow:

Hardware Requirement:

**Algorithms and Data Structures:**

Algorithms:

Data Structures:

**User Interface Design and Implementation:**

User Interface Design:

User Interface Implementation:

**Testing:**

Unit Test Architecture and Strategy/Framework:

Unit Test Definition, Test Data Selection:

System Test Specification:

Test Reports per Spring:

**Project management:**

Project Plan:

Risk Management:

**References:**

[1] Telephone Records and Privacy Protection Act of 2006, Pub. L. No. 109-476, 120 STAT. 3568 (2006).