

## **Image-Projection Plus Facial Recognition For User Authentication**

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Our group has selected the NSA project: Image-Projection Plus Facial Recognition For User Authentication. This project attempts to provide an alternative to current methods of security. In today's digital age, the need for secure and convenient user authentication is at an all-time high due to the increasing threat of cyberattacks. Many developers have turned to biometric authentication methods, commonly in the form of facial recognition. However, we hope to develop a product that creates an additional layer of security to continue the fight against the ever-changing threat of cyberattacks. The challenge is to develop a robust and secure user authentication solution that combines image projection with facial recognition. Our product will address the many issues that exist with current user authentication.

Our objective is to implement a multifaceted authentication system. This system leverages facial recognition to identify the user and image selection, projection, and rotation to validate the user based on predefined user values. By incorporating these advanced biometric features, we seek to establish an exceptionally robust and user-friendly authentication process. Combining facial recognition and image-projection authentication enhances the overall security posture and significantly mitigates the risk of authentication compromise.

There are two main types of stakeholders for this project. The first example of stakeholders are corporations and enterprises that deal with sensitive data and user accounts. They can use this security program to authenticate users and grant them access to needed

resources. Also, they can use this as a way for users to log in or as a second way of authentication for users of their applications. Another type of stakeholder for this product is government agencies. Since government agencies deal with sensitive and confidential data and need that data to be safe at all times, using facial recognition with more security features is paramount. Application users would trust this system because it is more secure than face ID and does not add a large hassle to their login experience.