

# Prestige Worldwide Vision Statement + Project Topic

Jordan St. Godard, Kevin Greeneich, John Teti, Nicolas Maltais-Dansereau

## **Vision Statement**

Our objective is to design and implement a web-based application that will use Image Recognition to facilitate and maintain visual timesheet records. The system will allow employees who are at a workstation with a front facing camera to time in and time out work hours accurately. Our reasoning for using facial image recognition with the camera is for accountability of hours worked through two factor authentication (password & image).

## **Technical Details**

Studies show that employees for companies may log more hours than they work even when the individual is not present at the workspace. Our system will keep employees honest with an extra level of accountability through using image recognition in conjunction with existing authentication methods. This will aid to prevent inaccurate payroll logs as a result of remote login. We plan on implementing the system such that a standard login with a username and password is only necessary for accessing an account and where any time logs will be individually authenticated using quick facial recognition. Furthermore, we may be able to eliminate the need for constantly logging into an account using a “remember me” feature while still preserving this accurate time log accountability with facial recognition.

This web-based application will take use of standardized APIs and programming languages widely available and documented. We plan to use web technologies including but not limited to HTML5, CSS3, Bootstrap Framework v3.3.x, AngularJS, PHP, and MySQL. The developmental process itself will include using git with GitHub as a version control system. While our application mainly targets a traditional web-based audience, our design should allow a mobile responsive interface with future possibility for expanding the application to native iOS, Android, or similar platforms for company administrators. We are beginning to conduct feasibility studies for facial recognition APIs to use for the system implementation.

For the design aspect, we plan on using tools such as Violet for UML diagrams and mockup tools such as Balsamiq for user interface designing. For the facial recognition APIs we are planning on using (one or more) of the following: Animetrics Face Recognition, Skybiometry Face Detection and Recognition, or Face++. Animetrics Face Recognition is a facial detecting API that takes a picture and gives coordinates on facial features and landmarks of the image. These coordinates are unique to each individual's face, therefore it can be a means of ID. Skybiometry is an easy to use face detection and recognition API. Finally, Face++ uses computer vision and data mining to provide face detection, recognition, and analysis using 23-point and 81-point landmark analysis, for precision, capable of detecting minor details such as age and gender, which will increase the accuracy in facial identification.