# COMP3000 Computing Project

## 2023/2024

### Project Title

*Multi-modal authentication using keyboard analysis and facial recognition.*

### Links

Source code:[*https://github.com/Firey56/comp3000-multi-modal-authentication*](https://github.com/Firey56/comp3000-multi-modal-authentication)

### Project Vision

*Outline your initial project vision here. Setting out your project vision at the start does not set it in stone, it can change as you develop your ideas, but you must provide a starting point.*

*Follow the format suggested here* [*https://martinfowler.com/articles/lean-inception/write-product-vision.html*](https://martinfowler.com/articles/lean-inception/write-product-vision.html)

*For [who?]*

*Whose [problem]*

*The [name of your product]*

*Is a [type of product]*

*That [what are the key reasons]*

*No need for the different from or our product.*

### Risk Plan

*Machine Learning knowledge – Building classifiers and training a model for keyboard analysis is a weaker side of my knowledge. To compensate for this, the minimum viable product will use facial recognition with a password without the implementation of any machine learning.*

*Training machine learning model – A minimum of 30 participants will be required in order to be able to get a prototyped model. Early data gathering provides an easier time in being able to collect the data due to requirement of ethical approval.*

*Facial Recognition API – The API that will be used for the facial recognition (presumed face++) is only a temporarily free-to-use API service. After a free trial, it becomes a paid for service. As a solution, alternate APIs will need to be researched.*

*Face cam dependency – For half of the authentication to be validated, a face camera is required for training as well as for usage. \*\*UNSURE ON HOW THIS CAN BE FIXED\*\**

### Proposed Gantt chart

<https://alexwilliams562.atlassian.net/jira/software/projects/SCRUM/boards/1/timeline>

Using Jira

*Identify here your proposed work packages and how they will fit together over the time you have available. This is a high level estimate.* A screenshot of a graph

Description automatically generated

### Keywords

Authentication

Biometrics

Facial Recognition

Password

Machine learning

Keyboard analysis

Access control

*Provide keywords for your project to enable searching*