CSE 5522 Advanced Artificial Intelligence

**Project Proposal**

**Group members:**

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**Project outline:**

As an AI project, our goal is to recognize the handwriting of Greek alphabets for LaTeX. To be more specifically, the recognized Greek alphabets will be translated into corresponding LaTeX syntaxes. It will be helpful when writing mathematical equations but cannot remember its syntaxes for LaTeX.

We will choose about thirty alphabets as typical cases, including:.

**Algorithm and Test Method:**

We plan to use neural network algorithm for our project with data sets collecting from 30 or more different people’s handwriting. We have already developed a platform for our project, as shown in Fig 1.

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| Fig.1 Handwriting platform |

After writing an alphabets at the upside part, the recognized outcome will be shown at the lower left side, and the translated LaTeX syntax will be shown at the lower right side. We will then compare the handwriting with the results as our testing method.

**Expect Outcomes:**

The accuracy of the handwriting recognition system will be up to 70%. If possible, we will add the function that showing all optional results of recognition.