FinTech Industrial Project Planning Form

Student Name & ID: HE Chuang 1155162385

Project title: Similarity analysis of financial time-series with shapelets and beyond

Sponsoring Organisation: ASTRI

Industrial Supervisor: Mr. Peter Xiang

Instructions: This form is to specify the tasks the student plans to undertake for the FinTech Project at the beginning of a semester. Please clearly specify the nature of the task and the expected achievements up to the midterm and the final. Please complete the form using Microsoft Word and add rows if necessary.

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| Task | Expected achievements by the midterm | Expected achievements by the final |
| Have a primary understanding about Shapelet method | By doing literature reading, I expect to know the principles of shapelets methods, the area we could use shapelets method and the advantages of using shapelets method. | By doing literature reading and practicing, I would be able to know how to use shapelet methods in practical work and give a literature review about shapelets methods. |
| Know how to apply Shapelets method with Python | By learning the codes and practicing, I expect to understand to algorithm of shapelets and be able to build the basic model. | By practicing, I would be able to build shapelets models to analyse practical problems. |
| Apply Shapelets method in financial time series analysis | By doing literature reading, I expect to know how the academic people use shapelets method to analysis time series data. | I would apply shapelets methods to analyse the time series data of one stock or an index. I would use the training set to train the model and use the test model to test the model. Finally I expected to find a precise model by parameter optimization. |