



## Generating synthetic data using MABS

PaySim, a Mobile Money Payment Simulator simulates money transactions between users based on Multi Agent Based Simulation (MABS). It also generates data that can be used to test algorithms which should detect suspicious activities or fraud. This generated data is based on real financial data, which cannot be published for security reasons. In order to use or train the detection algorithms on real data, the synthetic information should be as similar as possible to the real one but not exactly the same.

In this project or thesis, you should read the work of A. Elmir and E. Lopez-Rojas (PaySim), as well as the theory of MABS. Then you should implement a similar program to PaySim, which has certain data as input and should output generated synthetic data which fulfills the above requirement. As a test, you have to use the VeReMi Dataset where detection algorithms and results already exist. Then, the tool will be used on CAN messages.



Project



8/16  
LP



Bachelor's  
Thesis



12  
CP

Suitable for all students who can program with Java and are willing to learn MABS.

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If you are interested or you need additional details, feel free to contact me or drop by for a non-binding chat.

