MAE 6286 PROPOSAL

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For the project of MAE 6286, I want to simulate the model of shallow water equations. The detail of the equation could be found on Wiki[1]. Because my focus area is Robotic&Control, and I doing some research on using deep learning framework to solve computer vision problem right now, I want to use some machine learning frameworks to solve the PDE of my project. Finally, I will compare the solution between solving by the numerical method and machine learning. I may consider using TensorFlow[2] or Theano[3] to solve the partial differential equation.

[1] https://en.wikipedia.org/wiki/Shallow_water_equations
[2] https://www.tensorflow.org/tutorials/pdes
[3] https://wiseodd.github.io/techblog/2017/01/08/theano-pde/