Answer the following questions and submit a pdf file with your answers in one week.

1. What are the possible sources of uncertainty?
2. Explain frequentist probability and Bayesian probability with examples.
3. What are the sum rule and product rule of probability?
4. What’s the probabilistic density function of multivariate normal distribution?
5. What are the softplus and softened functions?
6. Prove that the KL divergence is non-negative?