Consider a simple linear regression model $Y_i = \beta_0 + \beta_1 X_i + \epsilon_i$, $i = 1, \ldots, N$. The parameters $\beta_0$ and $\beta_1$ are estimated via the OLS method. Calculate the deleted $t$-residuals using the GPU.

Give an example with a large ($N \sim 1000000$) data set. You may simulate $X_i$ from some known distribution (e.g., Uniform or Gaussian) and assume that $\epsilon_i$ are iid Gaussian variables.