Summer reading List :

Geometry/Topology
Review Lecture notes
Lee Riemannian Geometry
Bishop Geometry of manifolds
Differential Topology By Hirsch
Morse Theory by Milnor
Rui Differential Geometry
Gallot Riemannian Geometry
Differential Topology by Victor Gullimin

Probability:

Paper on Potential Theory
restudy Fundamental Probability
Durret Probability
LeGall Brownian Motion

analysis:

1st half summer
real and complex analysis by Rudin
real analysis by Folland
Complex analysis alfors
Complex analysis by Conway

2nd half summer till the fall

Functional analysis By Conway and Rudin combined with the lecture notes
Sobolev space by adams