

**GOH WOON PENG****Interdisciplinary Graduate School, Nanyang Technological University**

Woon Peng is a 4<sup>th</sup> year PhD candidate in the Complexity Institute and the Interdisciplinary Graduate School. He received his bachelor's degree from Nanyang Technological University in 2012 where he majored on Physics with a focus on Pure Physics and in his final year project he investigated Self-Organized Criticality in the failure of lending networks. He also holds a Diploma in Aeronautical Engineering from Singapore Polytechnic.

His current research topic is on the *Form and Functions of Complex Networks*. The crux of this project is to discover particular microstructures in real-world complex networks to explain their inner workings. He is especially interested in applying his methods to unstructured and large sets of data to discover detailed functional relationship among its components. So far, he has worked on temporal education data to establish the cause-and-effect relationship between different teaching practices and identify motifs of effective and ineffective teaching sequences. He is also interested in exploring the microstructure in the networks of languages. Given that language is essentially put together from constructions that cannot be simplified and governed by long and short range grammatical rules, its associated network is full of interesting sub-structures that can be discovered and quantified.