

Rishabh Singh is a PhD candidate at the Computational NeuroEngineering Lab (CNEL), University of Florida, under the advisement of Dr. Jose C. Principe since 2018. His research work involves developing physics inspired information theoretical frameworks for applications such as model predictive uncertainty quantification in deep learning under distributional shifts, quantification of data transferability and high resolution information retrieval from time-series data for clustering and dependency quantification. He is always on an eager lookout for opportunities to learn and contribute in the field of information theory, kernel methods and machine learning.

Rishabh has also worked with information theoretic linear dynamical systems (LDS) for applications in unsupervised time-series clustering and dynamical texture synthesis. As part of a DARPA project, he has also applied specific hierarchical architectures of LDS for studying video game action sequences. Rishabh also worked as a research scientist intern in 2020 (May-August) for Aventusoft (at Boca Raton, Florida), a startup that develops smart wearable accelerometer devices for analyzing and diagnosing heart conditions. As part of the internship, Rishabh developed deep learning algorithms for detecting fiducial points in electrocardiography signals as part of a downstream task for detecting arrhythmias. His work was incorporated into the company's product.

Before pursuing his PhD, Rishabh pursued his Masters degree in electrical engineering at the University of Florida from 2016 to 2018. He is a recipient of the University of Florida College of Engineering Achievement Award for New Engineering Graduate Students (2016). Before coming to Florida, Rishabh worked as an assistant manager at an automobile manufacturing plant, Tata Motors, at Pune, India, from 2014 to 2016. As part of his job, he made several improvements to the assembly line automation systems with respect to maintenance and productivity. Rishabh pursued his Bachelor of Technology degree in electrical and electronics engineering at the Vellore Institute of Technology, Vellore, India from 2010 to 2014. He was also part of a team of 40 members that built an electric car for Formula Student (FS) competition, UK (2013). Rishabh also worked with several professors there as an undergraduate researcher.

In his free time, Rishabh likes to go out for runs, kayaking and cycling. He has completed several half-marathons in the last decade.