APPLICATION OF MACHINE LEARNING TO STUDY OPIOID ADDICTION

Historically, drug abuse and addiction has been thought of as a failing of moral character. But recent studies have highlighted that contrary to the prevailing thought it is a disease of the brain. Hence, like any other disease it must be studied and those suffering from it must be given access to proper care and treatment. In recent years, opioid addiction in the United States has reached an epidemic proportion and continues to accelerate despite significant interventions by several federal and non-federal agencies. The factors driving opioid abuse and addiction are varied and complex. They include a wide array of socio-contextual and phenotypic factors that interact in complex manner across both time and space. Hence, in this seminar I present my approach of using machine learning technologies coupled with data collected from a wide range of databases to study opioid addiction at both the societal and individual level.

BIOGRAPHY

Sachin Gavali is a PhD Candidate in Bioinformatics Data Science in Dr. Cathy Wu’s lab where he is primarily involved in developing novel machine learning algorithms and software systems to help make training these algorithms easier. He also works on development and maintenance of a large in-house text mining system - iTexmine. Currently his research interests are in using machine learning to study human health conditions. Before this he obtained a degree of Bachelor’s in Dental surgery from India and practiced dentistry for one year.