



FACULTY MENTOR

Milstein, Larry

PROJECT TITLE

Machine Learning for Cognitive Radio

PROJECT DESCRIPTION

Profs. Larry Milstein, Pamela Cosman, and Nuno Vasconcelos are jointly looking into machine learning for cognitive radio systems. This project will develop an extensive simulation of primary user and secondary user behavior using different propagation environments and user activity models, and will also take real data using HackRF systems. The goal is to develop a deep learning system that can accurately determine the presence or absence of users in different bands, based on measurements such as total energy, peak-to-average power ratio, etc. in different sub-bands over time.

INTERNS NEEDED

1 MS and 1 BS

PREREQUISITES

Knowledge of wireless communications and machine learning are valuable