

Name: **Timothy Woinoski**

SFU faculty/major: Engineering Science

Title of presentation: Towards Automated Swimming Analytics Using Deep Neural Networks

Abstract

Methods for creating a system to automate the collection of swimming analytics on a pool-wide scale are considered in this paper. There has not been much work on swimmer tracking or the creation of a swimmer database for machine learning purposes. Consequently, methods for collecting swimmer data from videos of swim competitions are explored and analyzed. The result is a guide to the creation of a comprehensive collection of swimming data suitable for training swimmer detection and tracking systems. With this database in place, systems can then be created to automate the collection of swimming analytics.