

# RET Site: WRIST Wearable Research for In-Service STEM Teachers

Pls: Jon Youn and Briana Morrison

Institution:

University of Nebraska at Omaha

Contact Information: jyoun@unomaha.edu Website:

ret.ist.unomaha.edu

# RET- WRIST: SUMMARY OF THE ACTIVITIES

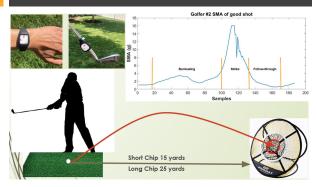
#### The objectives of the WRIST program are

- ➤ To engage high school computing technology teachers in cutting-edge research projects in wearable computing and related areas;
- ➤ To empower the participating teachers with pathways to translate their hands-on research experience and knowledge to their classrooms and
- ➤ To enhance the partnership among UNO computer science faculty, high school information technology teachers, and local industries to prepare K-12 students for future workforce demands.

#### The *outcomes* of the WRIST program:

- ➤ The project led to the establishment of a new Master of Science degree program in Computer Science Education (MS-CSE);
- This project nurtured the creation of a local ACM CSTA (Computer Science Teachers Association) chapter - the Metropolitan Omaha CSTA Chapter;
- The WRIST project has also established a close working relationship within the Metropolitan Omaha Area Schools (MOEC) districts; and
- ➤ The project placed a number of stepping stones for the teachers to garner deeper insights into computing technology education.

#### **RESEARCH PROJECTS**



## A Machine-Learning based Method for Evaluating Golf Chipping

This RET Project developed a wearable chipping analysis system that captures distinctive patterns between good and bad chip shots



## ML-based Classification of Traditional and Zero-Drop Running Shoes

The goal of this research is to classify footwear types using wearable sensors and machine learning algorithms.