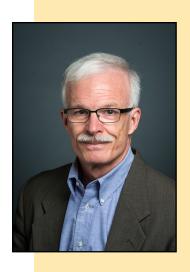
Volgenau School of Engineering



Gene Shuman, PhD

Assistant Professor, Information Sciences and Technology

Education

PhD, Computer Science, George Mason University

Key Interests

Data Mining | Machine Learning | Biomechanics | Electromyography | Predictive Analytics | Software Engineering | Project Management | Python Programming

CONTACT

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SELECT PUBLICATIONS

- G. Shuman, et al., Classifying Continuous Hand Grips and Movements Using Myoelectric and Accelerometer Signals, IEEE BIBM Conference, (2017).
- G. Shuman, et al., Improving the recognition of grips and movements of the hand using myoelectric signals, BMC Medical Informatics and Decision Making, vol. 16(2)), (2016).

Research Focus

My research focuses on using machine learning techniques to make predictions and as an aid in decision making. I've used these in a biomedical application in which electrical signals measured in a person's forearm are used to recognize the grips or movements of the hand attached to the forearm. One obvious use is to help an amputee direct the movement of a prosthetic hand, a la Luke Skywalker. I'm also interested in the general area of software engineering, including programming, teaching programming, and software development management. I am currently teaching in that area but am not doing active research.

Current Projects

 On-going development of courses, both online and face-to-face, in Python Programming, Object-Oriented Programming, Data Structures and Algorithms.