US 20130077820A1

(19) United States

(12) Patent Application Publication

Marais et al.

(10) Pub. No.: US 2013/0077820 A1

(43) Pub. Date: Mar. 28, 2013

(54) **MACHINE LEARNING GESTURE DETECTION**

(75) Inventors: **Charles Claudius Marais**, Duvall, WA (US); **Zsolt Mathe**, Redmond, WA (US); **Mark Seminatore**, Issaquah, WA (US); **Ivan Nevraev**, Reading (GB)

(73) Assignee: **MICROSOFT CORPORATION**, Redmond, WA (US)

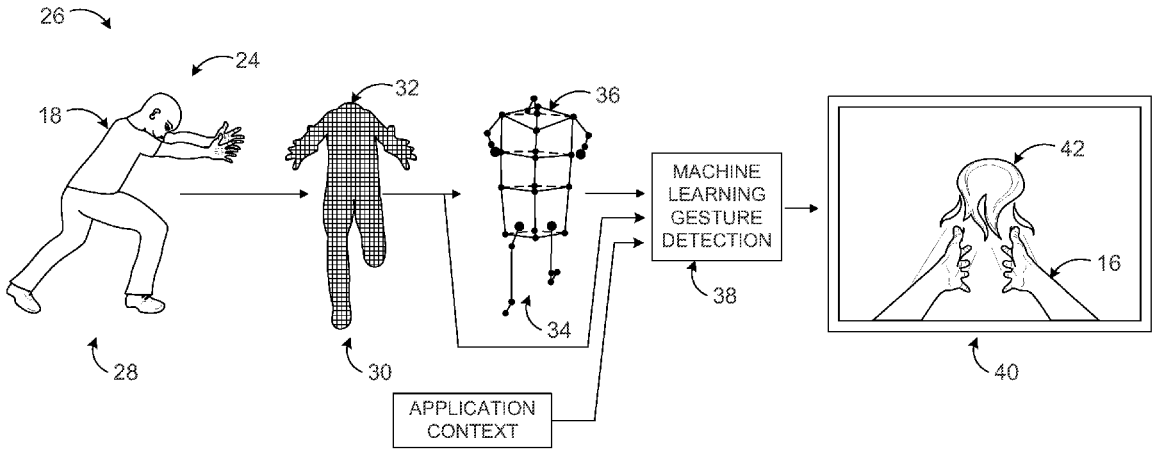
(21) Appl. No.: **13/245,640**

(22) Filed: **Sep. 26, 2011**

Publication Classification

(51) **Int. Cl.**
G06K 9/62 (2006.01)

(52) **U.S. Cl.**
USPC **382/103**

(57) **ABSTRACT**

A virtual skeleton includes a plurality of joints and provides a machine readable representation of a human subject observed with a sensor such as a depth camera. A gesture detection module is trained via machine learning to identify one or more features of a virtual skeleton and indicate if the feature (s) collectively indicate a particular gesture.