

Supplemental Digital Appendix 1

MEDLINE Search Terms Used in a Systematic Review of Literature on Using Machine Learning Techniques to Assess Physician Competence, May 2017

MEDLINE Search Terms

A Population - Physicians		AND	B Data Analysis - Machine Learning Techniques		AND	C Purpose - Assessment		AND	D Outcomes - Performance	
OR "surgeons" [Mesh Terms]	MeSH		OR "machine learning" [Mesh Terms]	MeSH		OR "educational measurement" [Mesh Terms]	MeSH		OR "psychomotor performance" [Mesh Terms]	MeSH
OR "surgeon*" [Title/Abstract]	Key		OR "machine learning" [Title/Abstract]	Key		OR "performance measurement" [Title/Abstract]	Key		OR "task performance and analysis" [Mesh Terms]	MeSH
OR "clinician" [Title/Abstract]	Key		OR "artificial intelligence" [Mesh Terms]	MeSH		OR "performance measure" [Title/Abstract]	Key		OR "work performance" [Mesh Terms]	MeSH
OR "doctor" [Title/Abstract]	Key		OR "artificial intelligence" [Title/Abstract]	Key		OR "behavior observation techniques" [Mesh Terms]	MeSH		OR "performance" [Title/Abstract]	Key
OR "doctors" [Title/Abstract]	Key		OR "predictive analytic*" [Title/Abstract]	Key		OR "behavior rating scale" [Mesh Terms]	MeSH		OR "clinical competence" [Mesh Terms]	MeSH
OR "physicians" [Mesh Terms]	MeSH		OR "neural networks [computer]" [Mesh Terms]	MeSH		OR "assessment" [Title/Abstract]	Key		OR "professional competence" [Mesh Terms]	MeSH
OR "physician*" [Title/Abstract]	Key		OR "neural network*" [Title/Abstract]	Key		OR "evaluation" [Title/Abstract]	Key		OR "motor skills" [Mesh Terms]	MeSH
OR "students, medical" [Mesh Terms]	MeSH		OR "bayesian network*" [Title/Abstract]	Key		OR "rating" [Title/Abstract]	Key		OR "social skills" [Mesh Terms]	MeSH
OR "medical student*" [Title/Abstract]	Key		OR "support vector machine" [Mesh Terms]	MeSH		OR "scoring" [Title/Abstract]	Key		OR "aptitude" [Mesh Terms]	MeSH
OR "resident" [Title/Abstract]	Key		OR "support vector machine*" [Title/Abstract]	Key		OR "score" [Title/Abstract]	Key		OR "skill" [Title/Abstract]	Key
OR "residents" [Title/Abstract]	Key		OR "natural language processing" [Mesh Terms]	MeSH		OR "checklist" [Mesh Terms]	MeSH		OR "proficiency" [Title/Abstract]	Key
OR "interns" [Title/Abstract]	Key		OR "natural language processing" [Title/Abstract]	Key		OR "checklist" [Title/Abstract]	Key		OR "ability" [Title/Abstract]	Key
OR "intern*" [Title/Abstract]	Key		OR "clustering" [Title/Abstract]	Key		OR "scale" [Title/Abstract]	Key		OR "competency" [Title/Abstract]	Key
OR "anesthesiologist*" [Title/Abstract]	Key		OR "cluster analysis" [Title/Abstract]	Key					OR "competence" [Title/Abstract]	Key
OR "anesthetist*" [Title/Abstract]	Key		OR "cluster analysis*" [Title/Abstract]	Key					OR "expertise" [Title/Abstract]	Key
OR "radiologist*" [Title/Abstract]	Key		OR "data mining" [Title/Abstract]	Key					OR "experience" [Title/Abstract]	Key
OR "dermatologist*" [Title/Abstract]	Key		OR "text mining" [Title/Abstract]	Key					OR "behavior" [Mesh Terms]	MeSH
OR "pathologist*" [Title/Abstract]	Key		OR "text-mining" [Title/Abstract]	Key					OR "behavior" [Title/Abstract]	Key
OR "intensivist" [Title/Abstract]	Key								OR "leadership" [Mesh Terms]	MeSH
OR "cardiologist*" [Title/Abstract]	Key								OR "leadership" [Title/Abstract]	Key
OR "neurologist" [Title/Abstract]	Key								OR "decision making" [Mesh Terms]	MeSH
OR "pediatrician*" [Title/Abstract]	Key								OR "decision making" [Title/Abstract]	Key
OR "gerontologist" [Title/Abstract]	Key								OR "communication" [Mesh Terms]	MeSH
OR "obstetrician" [Title/Abstract]	Key								OR "communication" [Title/Abstract]	Key
OR "psychiatric" [Title/Abstract]	Key								OR "awareness" [Mesh Terms]	MeSH
OR "urologist*" [Title/Abstract]	Key								OR "situational awareness" [Title/Abstract]	Key
OR "oncologist" [Title/Abstract]	Key								OR "self-awareness" [Title/Abstract]	Key
									OR "teamwork" [Title/Abstract]	Key
									OR "team work" [Title/Abstract]	Key
									OR "stress management" [Title/Abstract]	Key
									OR "emotional intelligence" [Mesh Terms]	MeSH
									OR "emotional intelligence" [Title/Abstract]	Key
									OR "professionalism" [Mesh Terms]	MeSH
									OR "professionalism" [Title/Abstract]	Key
									OR "interpersonal relations" [Mesh Terms]	MeSH
									OR "interpersonal relations" [Title/Abstract]	Key
									OR "interpersonal relationship" [Title/Abstract]	Key
									OR "clinical reasoning" [Title/Abstract]	Key