

Competency	Essex Graduate	Skill	Skill Level	Evidence
Professional	Literacy, Communication, Language Skills	Express information effectively to technical and non-technical audiences	Proficient	Regularly sought out by clients and peers for this skill. 20 years experience in authoring, presenting and training others in emerging technologies
		Create documents to aid your communication (reports, diagrams, legal descriptions, plans, manuals and charts)	Expert	Present technical papers and participate in technical panels internationally. Author numerous documents annually for clients and technical standards bodies
	Commercial Awareness	Keep current with tools of the industry, as well as emerging technology	Expert	Internationally recognized thought leader and presenter on emerging technologies within the Transportation space including surface, rail, aviation and maritime for automation, connectivity and cybersecurity.
		Seek opportunities to improve and share knowledge of tools and technology that may improve productivity	Expert	Responsible, trusted partner to clients to provide future proof designs and strategies for emerging technology and legacy support.
		Participate in scientific and professional organisations	Expert	Member, multiple standing committees and working groups for Transportation Research Board, IEEE, SAE et al. Chair of TRB cybersecurity WG.
		Emphasise quality, customer satisfaction and fair application of policies.	Proficient	Often serve as QA/QC manager on large, complex projects. Responsible for client debriefs and remediation within business class.
		Demonstrate familiarity with codes of conduct for the Computing field.	Proficient	Lecture on ethics in professional settings as well as instructor for ministerial ethics at seminary
	Subject understanding, research, critical thinking, time management	Critically analyse complex ideas in concepts in the field of Computer Science	Proficient	Regularly called upon to present new or complex technical principles to non-technical clients and decision makers
		Recognise inconsistencies and gaps in information, and search for additional information when needed...	Proficient	Sought out to lead cross functional teams toward building big picture strategies and process re-engineering efforts. Ability to recognize what's relevant and streamline efforts.
		Explore complex real-world problems in a Computing context	Expert	Multiple years and projects involving technology research, including as principal investigator. MSc at Essex modules added new areas to this skill through coding exercises.

<u>Legal and Ethical</u>	Ethical Awareness	Comply with the letter and spirit of applicable laws	Proficient	Advise clients on Federal, state and local compliance issues of law and regulatory standards.
		company, co-worker and customer information	Proficient	Chief privacy officer for USDOT research projects.
<u>Social (inc. Teamwork)</u>	Cultural Awareness	Act in the best interest of the community at large - Social (Community) Responsibility	Proficient	my oocupation. MSc program modules at Essex greatly enhanced this area due to vast diversity within my cohort for cybersecurity. One of my project teams comprised 4 discrete first languages, diverse cultures
	Teamwork, Leadership and Resilience, Time Management	achieve team goals	Proficient	
		skills	Proficient	
		Demonstrate skills in leadership and team building	Proficient	35+ years of advanced leadership training and positions ranging from 40 direct reports in the Military to mid-level corporate management
		Give and receive constructive feedback	Proficient	Conduct annual preformance reviews for subordinates, identify shortcomings in client programs, and receive both positive and negative feedback from clients.
	Creativity, Entrepreneurial, Problem solving, Initiative, Decision Making	Create, discuss and deliver strategies for sustainability for all stakeholders (company, community and environment)	Expert	Member TRB standing committees on transportation resiliency, protection of critical infrastructure and transportation for national defense. Provide cleints with continuity of operations planning, exercises, and after action reports.
		Able to make a decision on a complex matter/scenario using multiple sources of information	Proficient	Recognized expert and consultant for evaluating and resolving complex or unfamiliar issues, both technical and business strategies.
	<u>ata Science)</u>	IT and Digital,	<i>programme:</i>	
SQL for database querying			Aware	Average proficiency and use in designing queries or custom reports for clients.
Python Programming			Trained	Limited use of scripts for cybersecurity pen-testing. UoE modules in the MSc program have provide enhanced skills via Codio exercises and module assignments.
Java			Aware	Can install add-ins and understand value of support for other applications.
Python			Trained	IBID
noSQL				

Technical (D)	Numeracy			Limited use of scripts for cybersecurity pen-testing. UoE modules in the MSc program have provide enhanced skills via Codio exercises and module assignments.
		Scripting Language (Python)	Trained	
		Statistical Language (R)	Trained	
		Gits - repository development and maintenance	Proficient	Average prior to UoE program. Now proficient via course assignments and exercises
		Use of conferencing technologies and Moodle (VLE)	Proficient	Long-term use of multiple systems for remote support of clients
		Spreadsheets	Expert	Base job requirement for more than 30 years
		Effective use of e-library resources	Expert	Acquired via UoE
Subject Application	Global Citizen, Teamwork, Leadership, Emotional Intelligence	Take into account other people's perspectives	Proficient	Lots of formal training and occupational requirement. Enhanced by project team interactions at UoE.
		viewpoints	Proficient	IBID
		Actively participate in a range of community activities as an informed citizen	Expert	Regular participation both as private citizen and as client representative.
	Decision Making, Initiative, Emotional Intelligence, Ethical Awareness			
		Develop, articulate and clarify your personal values and ethics	Proficient	Continual growth in this area over entire career. Further enhanced by the truly global perspective and cohort make-up of teams at UoE.