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| **Competency** | **Skill** | **Skill Level** | **Evidence** |
| **Professional** | Information is effectively communicated to both technical and non-technical audiences. | **Advanced** | presented a thorough explanation of agent-based architectures and Python simulations to tutors and peers, as well as provided documentation on GitHub. |
|  | Create documentation (reports, plans, diagrams, manuals, and charts) to help with communication. | Advanced | Coded comprehensive agent performance and protocol documentation, including README files, UML diagrams, and module reports. |
|  | Keep up with emerging technologies and the industry. | **Advanced** | When creating intelligent agents, GitHub version control, cloud collaboration, and Python (Mesa, SPADE) were utilized. |
|  | Look for methods to improve and teach technology and tools that could increase productivity. | **Proficient** | Utilized Microsoft Teams and GitHub to inform colleagues about the most recent advancements in Python programming. |
|  | Join professional and scientific organizations. | **Intermediate** | Engaged in peer-to-peer discussion and academic online forums as part of the cooperative module learning activities. |
|  | Understand the computing field's codes of conduct. | Advanced | IEEE documentation guidelines and the Applied University of Essex's code of ethics for academic integrity. |
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| **Subject Understanding, Research, Critical Thinking, Time Management** | Examine complex ideas and concepts in the field of computer science critically. | **Advanced** | Numerous agent architectures—deliberative, reactive, and hybrid—were examined and tested across a range of problem domains. |
|  | Find informational gaps and inconsistencies, and where required, look for additional information. | **Advanced** | To help with design decisions, scholarly sources on agent communication and ontology development were contacted and compared. |
|  | Context of numbers Examine difficult issues in the context of computing. | **Advanced** | developed and tested multi-agent simulations to create dynamic environments, such as systems for allocating resources. |
| **Legal and Ethical** | Respect the applicable laws and morals. | **Advanced** | Verified that all data and code adhered to the university's integrity policies, including those pertaining to attribution and privacy. |
|  | Maintain the privacy and confidentiality of user and project data. | **Proficient** | ethical data-handling guidelines applied to the agent simulation datasets. |
| **Social (inc. Teamwork)** | Participate in various teams to achieve objectives. | **Advanced** | planned and executed a hybrid agent architecture on GitHub version control as part of a distributed virtual team. |
|  | Demonstrate teamwork and leadership abilities. | **Proficient** | Oversee the upkeep of the repository, assign code integration, and provide reviews that are well-structured. |
|  | Give and receive compliments. | **Advanced** | actively participated in unit discussions and group projects involving peer feedback loops. |
| **Creativity, Entrepreneurial, Problem Solving, Initiative, Decision Making** | Create and offer strategies for sustainable computing solutions. | **Proficient** | Only scalable agent architectures that tackle the dynamism-related resource allocation issues, including the ethical design issues. |
|  | Select solutions for complex problems using a variety of intelligence sources. | **Advanced** | evaluated a number of agent-based options before deciding on a hybrid architecture supported by solid research. |
| **Technical (Data Science)** | Python Programming | **Advanced** | Python libraries were used to create agent-based models and hybrid applications (Mesa, SPADE). |
|  | creation of the repository and Git. | **Advanced** | Collaborate on branches, commits, and pull requests on the GITHub while maintaining stable version control. |
|  | Data handling and SQL/NoSQL | **Intermediate** | Agent knowledge bases are defined using concepts of structured and unstructured data. |
|  | Moodle (VLE) and conference tools are utilized. | **Proficient** | tracked submissions and conducted online discussions and coordination using Teams and Moodle. |
|  | Spreadsheets and word processing programs. | **Proficient** | compiled project reports and module documentation using Microsoft Word and Excel. |
|  | Excellent use of the e-library. | **Advanced** | conducted research on module research and consulted scholarly resources on IEEE, Springer, and the University e-library. |
| **Subject Application** | Think about what other people think. | **Advanced** | integrated system design choices and documentation with feedback from tutors and other students. |
|  | Collaborate constructively to identify points of disagreement. | **Proficient** | respectfully distributed responsibilities and took part in team discussions on architectural designs. |
|  | Develop, articulate, and define personal ethics and values. | **Advanced** | demonstrated ethical awareness by making sure that all project activities adhered to the principles of transparency and fairness. |