TABLE 1. Student examples of the ways they felt they were provided an authentic research experience, in response to the question "Give at least three examples of how your felt [the program] provided authentic research experience." There were a total of 35 responses, from which 6 common themes were identified. Some responses included multiple themes.

Theme	Example(s)/Excerpt(s)	Count (Percent)
Learning how to use professional tools/software for visualization and data analysis	"We used tools that scientists and researchers use." "Able to use professional data analysis tools." "Designing novel machine learning models." "Learning how to analyze data using Python and R." "I'd never learned about the tools that they taught us such as MATLAB, Tableau, QGIS."	24 (69%)
Learning how to use and access authentic open access data	"Working with real, packaged datasets we had to sort through with computer programming." "Learning to analyze and draw conclusions from open access data." "We drew conclusions and statistics from our analysis of open source data." "Learning how to use and where to find open access data." "We worked with real data from a national organization."	23 (66%)
Formulating an independent research question and/or writing a research paper	"The formulation of a research question and plan." "We actually did research of our own." "Collaborating with others to create a research project." "Figuring out a research topic/question." "Participated in writing my first research paper."	17 (49%)
Presenting data analysis and results at a research symposium in front of professionals	"Presenting our findings at a symposium." "Allowing students to present their projects at a symposium." "We got to present our topic in a research symposium." "Presenting an actual seminar with professors." "The concluding research symposium with our project teams in front of [the program] professors and alumni replicated the research experience I'd encounter through university and having that audience to judge our work felt gratifying and validating in the legitimacy of our efforts."	14 (40%)
Learning how to find, read, and/or cite scientific literature	"The instructors provided great help with literature reviews." "We compared scientific journals to our own work." "We sifted through others' research papers." "We learned about how to effectively find research papers." "We learned how to correctly cite sources."	7 (20%)
Working together with peers	"Collaborating with others to create a research project." "I learned how to communicate with my team to do all of the above, distributing the workload and collaborating." "Working with a team on the research project." "Working with teammates." "Working with strangers."	7 (20%)