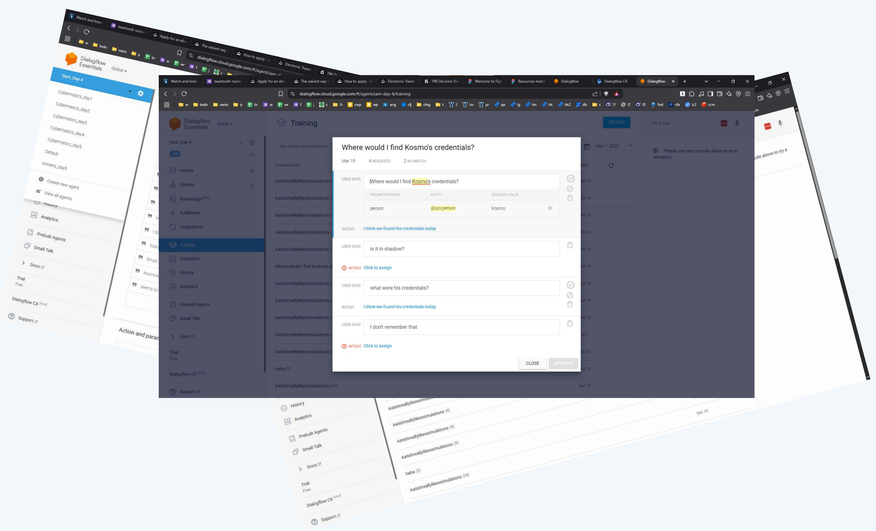
CUS

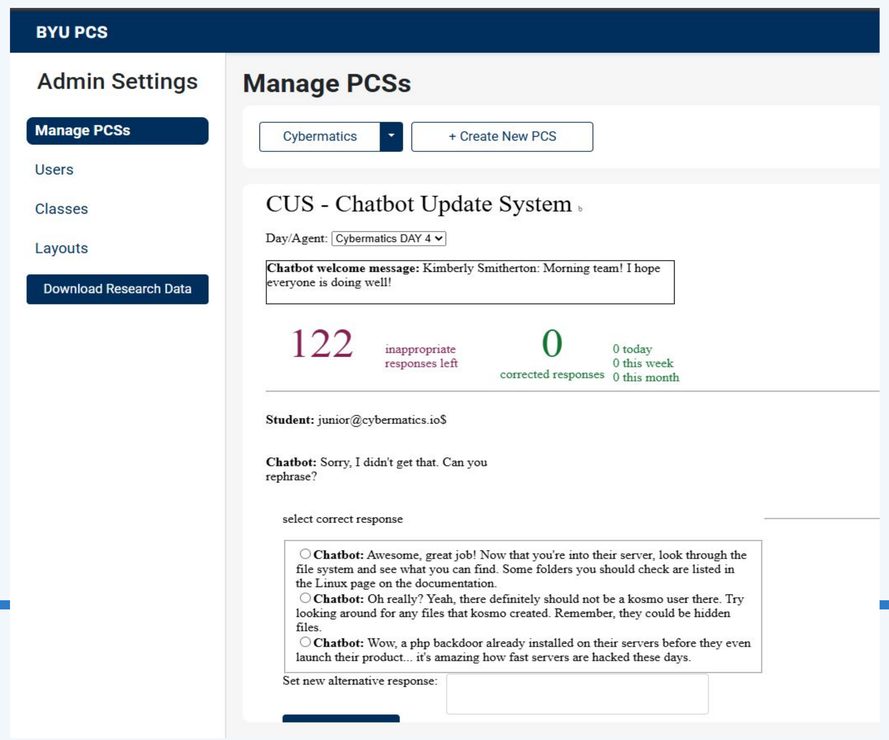
The Chatbot Update System

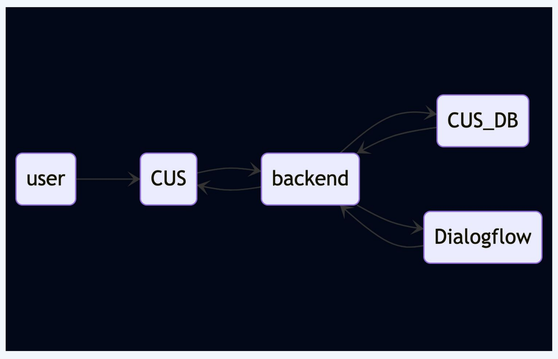


An Effective Interface to Train AI

With the rise of AI in many disciplines and the proliferation of chatbots in many applications, various chatbots need training to properly respond to human users. In this presentation, I report on a chatbot training interface that I developed named CUS, the Chatbot Update System. CUS was developed for use with an educational simulation for cybersecurity education that immerses users in an experience like unto working in a cybersecurity firm. A chatbot plays the users' coworkers in the simulation, and the chatbot needs training to recognize the meaning of various user inputs. CUS successfully provided a convenient and efficient way to provide appropriate responses to user input.

My solution was to create a UI that would simplify the process of training the AI and would provide a tool to efficiently and effectively train AI





Requests-flow diagram

Results

time to train	average per	requests/10
5m 15s	39.48s	43 req
to	to	to
1m 50s	13.75s	12 req

Reduced user load from average 5 unnecessary responses to sort through down to 0.

Stephen Francis
IP&T, PhD Student
Brigham Young University

Researchers at Brigham Young University have created a specific type of educational simulation known as a playable case study and have developed a playable case study platform. A playable case study (PCS) provides a semi-real experience for users to try out newly-acquired knowledge and skills in a low-risk environment (Giboney et al, 2021). Users have found playable case studies to be valuable to their learning and a good way to gain and practice important skills in a realistic simulation. One of the PCS used to train cybersecurity students on the duties and experiences of cybersecurity professionals was named Cybermatics.

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Giboney, J. S., McDonald, J. K., Balzotti, J., Hansen, D. L., Winters, D. M., & Bonsignore, E. (2021). Increasing cybersecurity career interest through playable case studies. TechTrends, 65(4), 496–510. https://doi.org/10.1007/s11528-021-00585-w