**Module 3 Portfolio Milestone**  
Joshua Farrell  
CSU Global  
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Dr. Luis Gonzalez  
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In my project, I am building a system to tag and organize outdoor product assets, and neural networks are exactly the right tool for the job. Over the years our team has built up more than 12 terabytes of photos and videos, and the file names or folder structures rarely tell you what is actually inside. A picture might have a tent, a chair, or a sleeping bag, but a rule-based system cannot easily handle that kind of uncertainty. Neural networks, and especially convolutional neural networks, are designed for these fuzzy situations because they learn visual patterns directly from the data. By using transfer learning with a model like ResNet, the system can quickly recognize products and even note scenes like mountains or lakes or pull out dominant colors that matter for packaging and marketing. This makes the media library searchable in ways that save the creative and sales teams hours of hunting, which lines up well with what Sharda, Delen, and Turban (2023) describe as AI supporting better organizational decision-making. It also shows the value of CNNs in turning messy, unstructured data into something useful for real business outcomes (Alzubaidi et al., 2021).

**References**

Alzubaidi, L., Zhang, J., Humaidi, A. J., Al-Dujaili, A., Duan, Y., Al-Shamma, O., … & Farhan, L. (2021). Review of deep learning: Concepts, CNN architectures, challenges, applications, future directions. *Journal of Big Data, 8*(1), 53. https://doi.org/10.1186/s40537-021-00444-8

Sharda, R., Delen, D., & Turban, E. (2023). *Business intelligence, analytics, data science, and AI: A managerial perspective* (5th ed.). Pearson.