Round	14
Grant #	M94
Applicant Name	Jack Zheng
Applicant Position	Associate Professor
Applicant Institution	Kennesaw State University
Applicant Email Address	gzheng@kennesaw.edu
Other Team Members	Meng Han mhan9@kennesaw.edu
Type of Project	Revision of pre-existing OER
Course Number(s) and Title(s)	IT 7113 Data Visualization
Final Semester of the Project	Summer 2020
Proposed Grant Funding Amount:	$4,800.00
Currently-Existing Resource(s) to be Revised / Ancillaries Created	https://oer.galileo.usg.edu/compsci-collections/31/
Project Description	The course IT 7113 was a newly created course in 2017. Currently, it is part of the KSU MSIT data management and analytics certificate and is scheduled to be offered three times in a 2-year period with an annual enrollment about 40 to 50 per year. The course was using a visualization software Tableau at the time, and there were 6 labs developed based on Tableau in the course. Since then, there has been a growing need for another interactive visualization solution based on web technologies. We believe it is beneficial to include a second set of labs based on web technologies for interactive visualizations. Our curriculum enhancement development plan is as follows: 1. Update the module on data visualization tools and solutions, to include more web-based solutions and technologies. 2. Develop six more labs based on web technologies. Our tentative choice is D3.js at this time. Other frameworks like Google Charts (https://developers.google.com/chart/) and Flexdashboard (https://rmarkdown.rstudio.com/flexdashboard/) are under consideration. The course development will also include comparisons of these tools and strategies to teach them. 3. The six labs will be developed corresponding to the existing Tableau labs: a. Intro (basic environment and foundations)

	b. Basic charts (and data preparation) c. Advanced and custom charts (and formatting and customization features) d. Maps e. Dashboards f. Interactivity 4. The final development project will be updated to allow the use of web technologies. 5. Add two modules on visualization design and dashboard design 6. Examine and update all other modules with the most recent resources.
Timeline and Personnel	Dr. Jack Zheng - the main content developer and course architect. Dr. Meng Han – subject expert. He will help with the labs and comparison of tools. Timeline: Summer 2019 – tools study and comparison Fall 2019 – course/lab update; web site update Spring 2020 - implement the new and updated materials to the actual course and get student feedback. Summer 2020 - data analysis; project conclusion.
Budget	Dr. Jack Zheng, as the main content developer and instructor, is requesting $2000 as summer 2020 compensation. Dr. Meng Han has also taught this course before, and he will assist with lab development. He is requesting $2000 as summer 2020 compensation. We are also requesting $800 for the overall project expense including potential spending on the licensed material purchase.
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