DESCRIPTION: Introduction to scientific and information visualization. Topics include visualization of scalar and vector fields (isosurface extraction, volume rendering, line integral convolution, and particle tracing); visual data representations (parallel coordinates, treemaps, and graph layouts); interactive techniques (focus+context visualization and coordinated multiple views); and solutions for big data visual analytics. Students will gain hands-on experiences in learning popular visualization programming (D3.js) and toolkit (ParaView). Students will have the opportunity to learn, implement, and apply visualization techniques through assignments and projects.

CREDITS: 3
DAY/TIME/PLACE: MWF, 11:30-12:20, 319 DeBartolo Hall
INSTRUCTOR: Chaoli Wang (chaoli.wang@nd.edu)
TEXTBOOK: Not required. Instructors will prepare slides and online material.
GRADING: Based on class participation, assignments, and project.

Selected Past Student Projects