<p>| Sample GIS Capstone Projects                                                                                                                                                                                                 |
|----------------------------------------------------------------------------------------------------|-------------------------------------------------|--------------------------------------------------|
| <strong>Project Title</strong>                                                                                 | <strong>Semester</strong>                                   | <strong>Mentor Affiliation</strong>                           |
| Teaching the Ahtna Athabascan Language Through Interactive GIS Mapping                             | Spring 2014                                   | Chickaloon Village Traditional Council           |
| Utilizing GIS in Disaster Response Case Study: Japan 2011                                         | Spring 2014                                   | US Department of Defense                         |
| Community Health Link Explorer: A Spatial Data Warehouse Infrastructure to Investigate Community Health in Chicago | Summer 2014                                   | JHU GIS Faculty                                  |
| City of Dayton Route Optimization                                                                | Fall 2014                                     | City of Dayton, OH                               |
| Data Quality and Management of Legacy Datasets for Cultural Resource Management: A Case Study from the Military Installation at Fort Campbell, Kentucky and Tennessee | Fall 2014                                     | JHU GIS Faculty                                  |
| Defensible Space Optimization for Preventing Wildfire Structure Loss in the Santa Monica Mountains | Fall 2014                                     | National Park Service                            |
| Assessment of Non-Point Source Phosphorus Pollution Potential in the Increasingly-Urbanized Puget Sound Region | Fall 2014                                     | Washington State University                      |
| Impact Assessment of Sea Level Rise in Bangladesh                                                | Spring 2015                                   | JHU GIS Faculty                                  |
| Food Deserts in Washington DC                                                                     | Spring 2015                                   | JHU GIS Faculty                                  |
| On the Performance of Storage Utilization and Query Retrievals for Datasets of Disparate Shapes, Dimensions, and Tuple Count using Spatial Indexing in RDBMS | Spring 2015                                   | JHU GIS Faculty                                  |
| The role of Geographic Information Systems in Environmentally Focused Social Networks             | Fall 2015                                     | Viable Industries LLC                            |
| Practical Applications for GIS in Health Services Administration                                 | Fall 2015                                     | Private Sector                                   |
| Performance and Application of GIS and Big Data ETL Processes using FME                           | Fall 2015                                     | Spatial Business Systems                         |
| Fishing with Friends: Web-based Applications                                                      | Spring 2016                                   | JHU GIS Faculty                                  |
| Creating a Musical Atlas                                                                          | Spring 2016                                   | JHU GIS Faculty                                  |
| Geographic and racial disparities in primary and chronic cytomegalovirus infection during pregnancy | Spring 2016                                   | Duke University                                  |
| Digital Photogrammetry and Machine Vision Techniques for Airfield Condition Assessment            | Spring 2016                                   | USACE                                            |
| Horizontal Oil and Natural Gas Well Tax Calculation and Allocation                               | Summer 2016                                   | Buckeye Hills Regional Council                   |</p>
<table>
<thead>
<tr>
<th>Project Title</th>
<th>Year</th>
<th>Institution/Location</th>
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</thead>
<tbody>
<tr>
<td>Material Identification Automation for Tipping and Queuing in Hyperspectral</td>
<td>Summer 16</td>
<td>JHU GIS Faculty</td>
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<tr>
<td>Analysis</td>
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<tr>
<td>Optimizing Health Resource Allocation</td>
<td>Summer 16</td>
<td>Lower Rio Grande Valley</td>
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<tr>
<td>Asset Failure Protection in a GIS Environment</td>
<td>Fall 2016</td>
<td>Private Sector</td>
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<td>Using GIS to Analyze Conflict in Aleppo, Syria</td>
<td>Fall 2016</td>
<td>JHU GIS Faculty</td>
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<td>Interactive Climate Atlas for the Contiguous United States</td>
<td>Fall 2016</td>
<td>Illinois State Water Survey</td>
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<tr>
<td>Promoting Effective Adoption of GIS for Search and Rescue Planning</td>
<td>Fall 2016</td>
<td>JHU GIS Faculty</td>
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<tr>
<td>First in Flight: UAV Imagery in Environmental Workflows</td>
<td>Spring 2017</td>
<td>San Diego Community College</td>
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<td>Prehistoric Archaeology in the Florida Keys</td>
<td>Spring 2017</td>
<td>University of Miami</td>
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<td>Evaluating a Vegetation Adjusted Nighttime Lights Urban Index</td>
<td>Spring 2017</td>
<td>NASA</td>
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<td>Flood Preparedness: An Environmental and Demographic Analysis</td>
<td>Spring 2017</td>
<td>City of Warwick Planning Department</td>
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<td>Polyphagous Shot Hole Borer Explorative Map</td>
<td>Fall 2017</td>
<td>County of Orange Public Works</td>
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<td>Creating a GIS Hazard Map for Antarctic Sea Ice</td>
<td>Fall 2017</td>
<td>Oregon State University</td>
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<td>Database Creation and Map Automation at the USGS National Minerals Information Center</td>
<td>Fall 2017</td>
<td>United States Geological Survey</td>
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<td>Spore Modelling Data Processing and Analysis</td>
<td>Fall 2017</td>
<td>Ministry for Primary Industries (MPI) New Zealand</td>
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<tr>
<td>A GIS-based model and analysis to determine wind farm site suitability in Nevada, USA</td>
<td>Spring 2018</td>
<td>JHU GIS Faculty</td>
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<tr>
<td>A GIS Analysis of Land Cover Change and Habitat Suitability in the Santa Ana River Wash, San Bernadino County, California</td>
<td>Spring 2018</td>
<td>San Bernardino Valley Water Conservation District, Redlands, CA</td>
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<tr>
<td>Developing a Land Management Web Application Utilizing the ArcGIS Javascript API</td>
<td>Spring 2018</td>
<td>US Army Corps of Engineers</td>
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<tr>
<td>A GIS Analysis of Public High School Standardized Performance and Socioeconomic data for the island of Oahu, Hawaii</td>
<td>Spring 2018</td>
<td>Wai'anae High School, Hawaii</td>
</tr>
<tr>
<td>Project Description</td>
<td>Time</td>
<td>Institution</td>
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<td>Geospatial surveillance of opiod overdose mortality using GIS and Twitter API platform</td>
<td>Summer 2018</td>
<td>Johns Hopkins University School of Public Health</td>
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<tr>
<td>GIS Optimization of Facilities Asset Management and Calls for Service</td>
<td>Summer 2018</td>
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<tr>
<td>Development of a Spatial Decision Support System in the Electrical Industry</td>
<td>Summer 2018</td>
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