



**SDSU**  
presents  
a thesis defense for  
Master of Science  
degree in  
Computer Science

Monday,  
January 26, 2015  
  
1:00pm  
GMCS 418

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## *Imports and Exports of the USA*

### Abstract

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This project concentrates on developing a GIS tool for displaying the imports and exports of the United States. The tool is built in an interactive environment, thus stimulating the interest of students when presented in a classroom environment. Users have the ability to choose from the top 10 imports and exports categories (based on USD for 10 years). When a particular category is selected, the tool highlights the top 10 countries (by USD) for that particular category. By leveraging technology in conjunction with Economics subjects, this not only makes the environment interactive but also presents the subject in an engaging and lively fashion.

In addition, the thesis examines how goods are delivered from exporters to importers. Product can be shipped by truck, train, and if liquid, by pipe, if land routes exist. But much has to be sent on ocean worthy ships, like bulk carriers and tankers. The thesis also pays homage to major data sources, and shows how to use them effectively.

The application uses throughout the project, the Map Object Java Edition (MOJO) API provided by ESRI. A key UI challenge of any Learning Management System (LMS) is to have the interface simple yet intuitive and at the same time not compromising on features. Hence, every effort was made to present the learning through a simple interactive powerful interface.

### Thesis Committee

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Carl Eckberg, Thesis Chair, Department of Computer Science  
Alan Riggins, Department of Computer Science  
Vadim Ponomarenko, Department of Mathematics & Statistics