

presents MS Computer Science THESIS DEFENSE

Thursday, November 10, 2016 12:00pm GMCS 418

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Informative Application on Marine Species (Learn Marine)

Abstract

Learn Marine is an informative application developed to provide basic knowledge about large, small and microscopic species to an audience which is new to the field of marine biology. It is swing based application developed in JAVA and is deployed on Webswing server so that it can be used as a web application.

This application mainly provides the comparison between small and large aquatic species based on the different factors affecting their daily life. The most important and popular categories of the species are present in this application. Vast amounts of data have been filtered and only the 'required' information is displayed to the user in the form of pictures, PDF and videos. User can either just view the PDF file or can download it for future reference. Statistical information like population density, types of specie and endangered species is represented in form of bar charts and line charts.

Lesser known facts about all the categories of marine organisms, starting from bacteria to big animals are given in this application. A separate knowledge tab is present providing detailed information about the ancestors of the marine species and then cross referencing that to the existing species. Marine biology is still a significant frontier, and there are no tools like this one to try to provide a non-trivial multi-media introduction to this topic, and that was the motivation for the thesis.

Thesis Committee

Carl Eckberg, Thesis Chair, Department of Computer Science Guy Leonard, Department of Computer Science Mark Dunster, Department of Mathematics & Statistics