

## Collaborative Platform for Learning Basic Programming (Algorinfo)

**Authors :** Edgar Mauricio Ruiz Osuna, Claudia Yaneth Herrera Bolivar, Sandra Liliana Gomez Vasquez

**Abstract :** The increasing needs of professionals with skills in software development in industry are incremental, therefore, the relevance of an educational process in line with the strengthening of these competencies, are part of the responsibilities of universities with careers related to the area of Informatics and Systems. In this sense, it is important to consider that in the National Science, Technology and Innovation Plan for the development of the Electronics, Information Technologies and Communications (2013) sectors, it is established as a weakness in the SWOT Analysis of the Software sector and Services, Deficiencies in training and professional training. Accordingly, UNIMINUTO's Computer Technology Program has addressed the analysis of students' performance in software development, identifying various problems such as dropout in programming subjects, academic averages, as well as deficiencies in strategies and competencies developed in the area of programming. As a result of this analysis, it was determined to design a collaborative learning platform in basic programming using heat maps as a tool to support didactic feedback. The pilot phase allows to evaluate in a programming course the ALGORINFO platform as a didactic resource, through an interactive and collaborative environment where students can develop basic programming practices and in turn, are fed back through the analysis of time patterns and difficulties frequent in certain segments or program cycles, by means of heat maps. The result allows the teacher to have tools to reinforce and advise critical points generated on the map, so that students and graduates improve their skills as software developers.

**Keywords :** collaborative platform, learning, feedback, programming, heat maps

**Conference Title :** ICETC 2018 : International Conference on Education Technology and Computer

**Conference Location :** Paris, France

**Conference Dates :** August 27-28, 2018