

Being mobile in bachelor computer science curricula

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Abstract:

The boom of mobile technology increased the number, the diversity, and the presence of mobile applications in our society. And this seems to be just the beginning. Developing mobile applications involves, generally speaking, specialists in the specific field of the application, and specialists in developing mobile applications. In this talk we are interested by the latter category. What are the prerequisites for such a software developer? Can the necessary skills be reached by an undergraduate or graduate student following a computer science curriculum? To sketch a complete answer to these questions, it is necessary to consider several directions: the nowadays types of mobile applications, the technologies and devices involved, the prerequisites for reaching the knowledge of these technologies.

We consider curricula for computer science at undergraduate and graduate programs in representative universities from several countries. One can observe a clear tendency for an earlier preparation in the direction of mobile programming, especially in the countries with tradition in mobile devices technology. Also notice that the companies developing mobile applications and devices are offering specific training to their junior programmers, not yet graduated students.

These aspects yield the following conclusion. The student's training to become developer for mobile devices can start, at least at the level of a junior programmer, in the second semester of the undergraduate level.

Keywords: mobile application, curricula, mobile computing

ACM classification

• **Social and professional topics~Information technology education** • Social and professional topics~Model curricula • *Information systems~Mobile information processing systems* • *Human-centered computing~Mobile computing*