

Project Title: Integrating Cloud Computing into Software Engineering Education

Project Summary (150 words maximum)

Cloud computing has recently emerged as a promising paradigm for delivering software services over the Internet. The cloud offers significant benefits in terms of data transparency and economies of scale. This shift in designing, developing, and deploying software systems needs to be reflected in the way we teach the next generation of software engineers. Although cloud computing opens up considerable opportunities, it also brings many engineering challenges. We aim to renovate our software engineering curriculum to reflect these challenges. Our objective is to train our engineers to (1) understand and reason about the cloud computing paradigm and its advantages, (2) appreciate the challenges involved in engineering secure and dependable software systems that utilize the cloud, and (3) make informed decisions about adopting current cloud-based tools and techniques. We will incorporate the changes in two third-year core courses and two fourth year elective courses in the computer-engineering curriculum, impacting over 150 students.