Workshop on Mobile Software Engineering

http://wmse.sv.cmu.edu/

In conjunction with MobiCASE 2010
October 28, 2010 - Biltmore Hotel & Suites, Santa Clara, CA, USA

Workshop Overview

To complement the topics of MobiCASE 2010, the **Workshop on Mobile Software Engineering** will bring together members of the research community and industrial practitioners to explore the challenges, issues and opportunities in a systematic approach to the engineering of mobile applications and systems.

As mobile phones and devices become more powerful, as cloud services and telecom infrastructure become richer, and as consumer expectations evolve, developers are faced with an array of challenges that affect how they should systematically build and deploy new applications and systems.

These technical and business challenges include multiple sources of fragmentation and constraint, such as:

- Multiple hardware and software platforms
- Many development frameworks and programming languages
- Different operator restrictions and features
- Many app stores with different rules and tools
- Very short development cycles
- UI limitations and complexities of interaction with sensors and cameras
- Effective use of context
- Power management
- Security and privacy models and policies
- Computational and storage limitations
- Applications that depend on external services

Goals of the Workshop

Participants will explore the key issues, and together develop a "manifesto" for the Software Engineering of (next generation) mobile applications and systems, accompanied by a roadmap for future research and the identification of best practices, and their application to real-world development. This workshop is intended to be similar in spirit to the series of software architecture workshops that launched the Software Patterns movement.

A key topic for exploration is the overarching implication of the increasing fragmentation of the mobile applications ecosystem, involving important decisions on how to address the plethora of devices, platforms, operators, languages and app stores. Should a developer focus on only one combination of these, or use a toolkit or framework to mask (some of) the differences? How would this affect their approach to development? Another driver is the trend away from browser-only apps to native apps, and the closely related importance of agility and frequent updates; *release early and release often* could be emerging as the most successful paradigm.

Key Questions to Address

1. How does traditional software engineering relate to the engineering of mobile applications and systems? Is it the same, different or a variant of conventional approaches?
   For example, should mobile software engineering employ the same methods and processes but with different patterns and heuristics? Which methods should be used? Are there new methods?

2. What are the distinguishing features of mobile software specification, architecture, development and testing that need special attention, skills, or innovation?
   For example, consider the technical and business challenges listed above.

3. What is the suggested focus and agenda for mobile software engineering research and education?
   What new knowledge and skills do practitioners need most?

Position Paper Submission

The goal of each position paper is to identify the submitter's experience, in both software engineering and mobile development, and their positions on the three questions listed above. Accepted position papers will be posted on the workshop website to ensure that all participants are aware of each other's positions.

Position papers will be limited to 2 single-spaced 8.5" x 11" pages with 11-point font. See template at ***http://wmse.sv.cmu.edu/position-paper-template.pdf***.

Mail position papers to the organizers at ***wmse@sv.cmu.edu*.**

Schedule

Position paper submission deadline: **Saturday, July 24, 2010**
Acceptance notification: **Friday, July 30, 2010**
Position papers posted: **Saturday, August 14, 2010**
Workshop date: **Thursday, October 28, 2010**

Organizing Committee

Sarah Allen, Ultrasaurus
Ray Bareiss, Carnegie Mellon Silicon Valley (co-chair)
Adam Blum, Rhomobile
David Brittain, Motorola
Mark Friedman, Google
Martin Griss, Carnegie Mellon Silicon Valley (co-chair)