



Great job to Scott Baden, Dean Tullsen, Manish Arora, Siddhartha Nath, and Subhra Mazumbar for getting their work featured in the IEEE Micro Magazine.

CPU-GPU systems are becoming pervasive in consumer computing systems. This research points out that, in the context of CPU-GPU integration, the workload characteristics on the CPU side change significantly and current design directions are grossly inadequate. The work proposes new design directions for CPU-GPU systems via a large scale application characterization. Erik Altman (IBM Research and the Editor in Chief of IEEE Micro) says in his editorial : I particularly want to call attention to our cover article, "Redefining the Role of the CPU in the Era of CPU-GPU Integration". This article explores what computation will be mapped to GPUs, and what work will remain on CPUs. The remaining CPU work has significantly different characteristics than historical CPU workloads, and the authors explore the implications for CPU microarchitecture. Fascinating stuff.

Check out these links to see the feature in the IEEE Micro Magazine.

<http://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=6381392>

<http://cseweb.ucsd.edu/~marora/files/papers/cpu-gpu-ieeeemicro-2012.pdf>

CSE Students finalists for 2013 University Mobile Challenge

In a previous weekly newsletter post (11/09/12), three CSE students produced a new mobile app that lets iPhone users determine the best time to cross the border into the U.S. from Mexico or Canada. These same three CSE students have been selected to be one of the only 10 Finalists in the 2013 University Mobile Challenge. CSE graduate student Tarfah Alrashed (center), and CSE undergrads Matthew Davis and Rodrigo Rallo designed the iPhone app, "Best Time to Cross the Border", in less than three



months. Now, at least two of them will be winging their way to Barcelona with free-travel awards. Why Barcelona? Because the Finals will take place at one of the biggest international wireless-industry conventions: GSMA Mobile World Congress, which takes place in Spain this year. The University Mobile Challenge is an annual international competition organized by the Applied Innovation Institute and "designed to provide students with an opportunity to prepare for, experience, and feel the galvanizing power of real-world