

## *Presents*

Lin Zhong, Princeton University

### Building a virtual personal computer out of multiple systems

Today's mobile users each own multiple devices: smartphone, tablet, laptop and perhaps in the future smart watch and smart glass. This raises challenges to both the user and application developer. The user has to manage states in each device; and the developer has to develop a version of her application for each device. By moving application states to the cloud, existing solutions address these challenges with limited success. Instead, we aim at separating the states of personal computing from their hardware incarnation so that (i) a personal service can exploit hardware resources from multiple systems by spreading its states over them and (ii) its states or a subset of them can move from one system to another with negligible delay compared to human mobility. This talk will share results from our recent endeavors toward this direction, including a shared-most operating system model and I/O sharing across devices.

Bio: Lin Zhong received his B.S and M.S. from Tsinghua University and Ph.D. from Princeton University. He has been with Rice University since September 2005 where he is currently an associate professor. He was a visiting researcher with Microsoft Research for the summer of 2011 and March to December 2012. At Rice, he leads the Efficient Computing Group to make computing, communication, and interfacing more efficient and effective. He is a recipient of the National Science Foundation CAREER Award and of the best paper awards from ACM MobileHCI 2007, IEEE PerCom 2009, and ACM MobiSys 2011, 2013 and 2014, and ACM ASPLOS 2014.

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**3:30 – 4:30 PM**

**University at Buffalo – North Campus – Davis 113A**

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For more information, email [cse-dept@cse.buffalo.edu](mailto:cse-dept@cse.buffalo.edu) or contact (716) 645-3180