

The University of Chicago Computer Science Department

PRESENTS:

“OpenWhisk Under the Hood”



Stephen Fink

Principal Research Staff Member
IBM, Thomas J. Watson Research Center

Abstract:

"Serverless programming" is an emerging programming model for the cloud. In serverless models, the programmer simply registers event handlers and events, while the cloud provides a platform that dispatches handles and scales instantaneously, while charging for resources at a millisecond granularity. This talk will dive under the covers to discuss the implementation of the open-source OpenWhisk serverless framework. We'll review the OpenWhisk architecture and implementation, discuss requirements and design decisions, and present thoughts on directions for future work. We'll also relate experiences and war stories from operating a production serverless offering for nearly a year. We'll discuss what worked and what didn't, and review mistakes and good decisions with 20/20 hindsight.

Bio:

Stephen Fink is a Distinguished Research Staff Member at the IBM T. J. Watson Research Center. He manages the Cloud Programming Technologies Research group, which focuses on high level serverless cloud programming including OpenWhisk. Stephen's research interests include the design, implementation, and analysis of programming languages, and parallel and scientific computing. Over his career at IBM, he has worked on topics including a language and compiler for heterogeneous systems with FPGAs (Liquid Metal), the WALA static analysis system, and the Jikes Research Virtual Machine. He received the B. S. in Computer Science and Mathematics from Duke University, and the M.S. and Ph.D. in Computer Science from the University of California, San Diego.

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11:00 am
Ryerson 255
Host: Andrew A. Chien

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