



June 17, 2015 |



| [Careers @ SEI](#)

In This Issue

- [2014 SEI Year in Review Available for Download](#)
- [SEI Podcast Series: Context-Aware Computing](#)
- [SEI Blog: Aircraft Systems: Three Principles for Mitigating Complexity](#)
- [CERT® Alignment with Cyber COI Challenges and Gaps, Virtual Event - June 23, 2015](#)
- [12th SEI Architecture-Centric Engineering Workshop for Educators](#)
- [SEI Jobs](#)
- [Training Opportunities](#)

News: SEI Board of Visitors Member Barry Boehm Honored

SEI Board of Visitors member Barry Boehm was recently honored with the Nancy Mead Award for Excellence in Software Engineering Education at the 2015 Conference on Software Engineering Education and Training (CSEE&T). The award, named for SEI Fellow and founding CSEE&T Steering Committee Chair [Nancy Mead](#), is presented to an individual who has demonstrated outstanding contributions to software engineering education and training, as well as to software engineering professionalism.



Barry Boehm

[Read more about Boehm's contributions.](#)

Also in the news:

- [2014 SEI Year in Review Available for Download](#)
- [CERT/CC Team Wins U.S. Government Information Security Leadership Award](#)
- [Rich Program Earns Praise from SATURN 2015 Conference Attendees](#)
- [Shannon Stresses Better Measurement, Better Data Access, and Coordinated National Strategies in House Subcommittee Testimony](#)

SEI Podcast Series: Context Aware Computing

As the number of sensors on smart phones continues to grow, these devices can automatically track data from the user's environment, including geolocation, time of day, movement, and other sensor data. Making sense of

this data and using it for context-aware applications in an ethical manner is just one of the many challenges faced by researchers.

Two recent episodes of the SEI Podcast Series take up the topic of a collaboration between the SEI and Carnegie Mellon University in the area of context-aware computing. In the first podcast, [An Introduction to Context-Aware Computing](#), Boleng and Dey introduce context-aware computing and explore other issues related to sensor-fueled data in the internet of things.

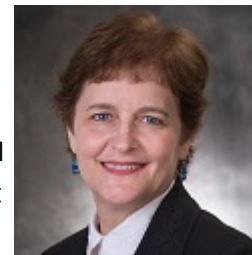
In the second podcast, [SEI-HCII Collaboration Explores Context-Aware Computing for Soldiers](#), Boleng and Dey discuss their collaboration to help dismounted soldiers using context derived from sensors on them and their mobile devices to ensure that they have the information and sensor support they need to optimize their mission performance.



Jeff Boleng (top) and Anind Dey

SEI Blog: Aircraft Systems: Three Principles for Mitigating Complexity

On July 6, 2013, an Asiana Airlines Boeing 777 crashed on final approach into San Francisco International airport. The National Transportation Safety Board (NTSB) blamed the crash on the pilots but also said, "the complexity of the Boeing 777's auto throttle and auto flight director--two of the plane's key control systems--contributed to the accident." Acting NTSB chairman Christopher Hart stated, "The flight crew over-relied on automated systems that they did not fully understand." The NTSB report on the crash called for "reduced design complexity" and enhanced training on the airplane's autoflight system, among other remediations.



Sarah Sheard

Since complexity is a vague concept, it is important to determine exactly what it means in a particular setting. This blog post by the SEI's Sarah Sheard describes research the SEI is undertaking to address the complexity of aircraft systems and software.

[Read the post.](#)

Events: CERT® Alignment with Cyber COI Challenges and Gaps, Virtual Event - June 23, 2015

On June 23, 2015, from 9:30 a.m. to 4:30 p.m. Eastern Time, researchers from the SEI's CERT Division will discuss their current work associated with cyber community of interest (COI) technology challenges and gaps in a daylong, interactive, virtual event. Participants will learn about

- how mission readiness can be assessed at a DoD scale
- a tool that shows whether a connection to the web is secure and what information is being transmitted
- the mutual benefits and interests between the SEI's CERT Division and the Cyber COI
- how DevOps methodologies address dynamic changes in cyberspace with the high-fidelity automation of networks, systems, and applications



- how a small subset of features from dynamic malware analysis can help to uncover possible relationships among files and to direct static reverse-engineering efforts
- undesired flows of sensitive information within and between Android apps
- mobile device security enhancements with defensive and offensive uses

Participation in this virtual event is free, but registration is required. For more information and to register, please visit the [event website](#).

Events: 12th SEI Architecture-Centric Engineering (ACE) Workshop for Educators, August 3-4, 2015, SEI Pittsburgh

The 12th SEI Architecture-Centric Engineering (ACE) Workshop for Educators will be held at the Software Engineering Institute in Pittsburgh, Pennsylvania, USA, on August 3-5, 2015. The SEI hosts this annual event to foster an ongoing exchange of ideas among educators whose curricula include the subjects of software architecture and software product lines. The event is free of charge and open to any accredited, college-level educator.



This year's event will incorporate two SEI courses. The first course, Engineering Run-Time Malware Detection, covers the principles of designing and implementing a real-time malware detection system for an existing operating system, with concrete examples for Windows 7. The second course, DevOps and Continuous Delivery: Software Architecture, Security, and Interactive Learning, is helpful if you wish to adopt DevOps practices and continuous-delivery workflows. The architecture component of the course focuses on the relationships among application software, the deployment environment, and the supporting tooling.

To learn more about ACE 2015, please visit <http://www.sei.cmu.edu/community/edworkshops/2015/index.cfm>.

These workshops are open to any accredited college-level educator. If you are an accredited college-level educator and are interested in attending, please send email to info@sei.cmu.edu and include the words "ACE Workshop" in your subject line.

SEI Jobs

The SEI is a great place to pursue your passion. Headquartered in Pittsburgh, Pa., the SEI also has offices in the Washington, DC, and Los Angeles, Calif., metropolitan areas.

Interested in working for the SEI? Visit our Careers page. Below are a few recent employment opportunities. For more job listings and full position descriptions, check out the [SEI Careers page](#).



[Program Development Manager, Government Program Development](#)

[Multi Media Designer](#)

[Cybersecurity Engineer - Exercise Developer](#)

[Data Scientist](#)

[Project Manager](#)

[More job listings...](#)

Training

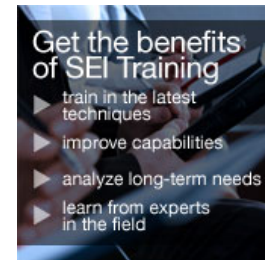
Upcoming Classes:

August 18-21, 2015 (Arlington, VA):

[Insider Threat Program Implementation and Operation](#)

August 18-20, 2015 (Pittsburgh, PA):

[Leading a Development Team](#)



New SEI eLearning Course:

[Big Data Architectures](#)

New Registration Portal

SEI Training has recently upgraded to a robust registration portal. The new portal provides simple and secure online access to course registration payments, a purchase history, confirmation letters, and receipts.

To view a video demo of the new SEI Registration Portal, please visit

<http://www.sei.cmu.edu/training/registration/>

[More SEI training opportunities...](#)

Software Engineering Institute, Carnegie Mellon University

1-888-201-4479

[Join Our Mailing List!](#)

About the SEI Bulletin

The SEI Bulletin is a biweekly newsletter designed to keep you up to date on SEI news, events, research, and other matters of interest to the SEI community. We hope you find the SEI Bulletin useful and informative.

Send Us Your Story

Do you have a story about how an SEI technology has positively affected your team or organization? If so, the SEI would like to hear about it. Send a short summary of your success to info@sei.cmu.edu and you could be featured in a future issue of the SEI Bulletin.