2018 USENIX Annual Technical Conference

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Sponsored by USENIX, the Advanced Computing Systems Association

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Important Dates
- Paper titles and abstracts due: **Tuesday, January 30, 2018**
- Complete paper submissions due: **Tuesday, February 6, 2018**
- Notification to authors: **Wednesday, April 18, 2018**
- Final papers due: **Thursday, May 31, 2018**

Conference Organizers

Program Co-Chairs
Haryadi Gunawi, *University of Chicago*
Benjamin Reed, *Facebook*

Program Committee
Rachit Agarwal, *Cornell University*
Irfan Ahmad, *CachePhysics*
Deniz Altinbuken, *Google*
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Carlos Maltzahn, *University of California, Santa Cruz*
Changwoo Min, *Virginia Tech*
Iqbal Mohomed, *Samsung Research America*
Cristina Nita-Rotaru, *Northeastern University*
Vijayan Prabhakaran, *Amazon*
Christopher J. Rossbach, *University of Texas at Austin and VMware Research*
Russell Sears, *Pure Storage*
Siddhartha Sen, *Microsoft Research*
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Antonia Zhai, *University of Minnesota*
Irene Zhang, *Microsoft Research*
Yiying Zhang, Purdue University
Zheng (Eddy) Zhang, Rutgers University

Overview

Authors are invited to submit original and innovative papers to the Refereed Papers Track of the 2018 USENIX Annual Technical Conference. We seek high-quality submissions that further the knowledge and understanding of modern computing systems with an emphasis on implementations and experimental results. We encourage papers that break new ground, present insightful results based on practical experience with computer systems, or are important, independent reproductions/refutations of the experimental results of prior work. USENIX ATC '18 has a broad scope, and specific areas of interest include (but are not limited to):

- Architectural interaction
- Big data infrastructure
- Cloud and edge computing
- Distributed and parallel systems
- Embedded systems
- Energy/power management
- File and storage systems
- Internet of Things
- Machine learning and systems interactions
- Mobile and wireless
- Networking (WAN, LAN, and datacenter) and network services
- Operating systems
- Reliability, availability, and scalability
- Security, privacy, and trust
- System and network management and troubleshooting
- Usage studies and workload characterization
- Virtualization

USENIX ATC '18 is especially interested in papers broadly focusing on practical techniques for building better software systems: ideas or approaches that provide practical solutions to significant issues facing practitioners. This includes all aspects of system development: techniques for developing systems software; analyzing programs and finding bugs; making systems more efficient, secure, and reliable; and deploying systems and auditing their security.

Reports of deployment experience and operations-oriented studies, as well as other work that studies software artifacts, introduces new data sets of practical interest, or impacts the implementation of software components in areas of active interest to the community are well-suited for the conference.

The conference seeks both long-format papers consisting of 11 pages and short-format papers of 5 pages, including footnotes, appendices, figures, and tables, but not including references. Short papers will be included in the proceedings and will be presented as normal but in sessions with slightly shorter time limits.

Best Paper Awards

Cash prizes will be awarded to the best papers at the conference. Please see the USENIX proceedings library for Best Paper winners from previous years at www.usenix.org/conferences/best-papers.

Best of the Rest Track

The USENIX Annual Technical Conference is the senior USENIX forum covering the full range of technical research in systems software. Over the past two decades, USENIX has added a range of more specialized conferences. ATC is proud of the content being published by its sibling USENIX conferences and will be bringing a track of encore presentations to ATC '18. This "Best of the Rest" track will allow attendees to sample the full range of systems software research in one forum, offering both novel ATC presentations and encore presentations from recent offerings of ATC's sibling conferences.

What to Submit

Authors are required to submit full papers by the paper submission deadline. *It is a hard deadline; no extensions will be given.* All submissions for USENIX ATC '18 will be electronic, in PDF format, via the web submission form on the Call for Papers website, www.usenix.org/atc18/cfp.

USENIX ATC '18 will accept two types of papers:

Full papers: Submitted papers must be no longer than 11 single-spaced 8.5" x 11" pages, including figures and tables, but not including references. You may include any number of pages for references. Papers should be formatted in 2 columns, using 10-point type on 12-point leading, in a 6.5" x 9" text block. Figures and tables must be large enough to be legible when printed on 8.5" x 11" paper. Color may be used, but the paper should remain readable when printed in monochrome. The first page of the paper should include the paper title and author name(s); reviewing is single blind. Papers longer than 11 pages including appendices, but *excluding references,* or violating formatting specifications will not be reviewed. In a good paper, the authors will have:

- Addressed a significant problem
- Devised an interesting and practical solution or provided an important, independent, and experimental reproduction/refutation of prior solutions
- Clearly described what they have and have not implemented
- Demonstrated the benefits of their solution
- Articulated the advances beyond previous work
- Drawn appropriate conclusions

Short papers: Authors with a contribution for which a full paper is not appropriate may submit short papers of at most 5 pages, not including references, with the same formatting guidelines as full papers. You may include any number of pages for references. Examples of short paper contributions include:

- Original or unconventional ideas at a preliminary stage of development
- The presentation of interesting results that do not require a full-length paper, such as negative results or experimental validation
- Advocacy of a controversial position or fresh approach

For more details on the submission process and for templates to use with LaTeX and Word, authors should consult the detailed submission requirements at www.usenix.org/conference/atc18/requirements-authors. Specific questions about submissions may be sent to the program co-chairs, atc18chairs@usenix.org.

By default, all papers will be made available online to registered attendees before the conference. If your accepted paper should not be published prior to the event, please notify production@usenix.org. In any case, the papers will be available online to everyone beginning on the first day of the conference, July 11, 2018.

Papers accompanied by nondisclosure agreement forms will not be considered. Accepted submissions will be treated as confidential prior to publication on the USENIX ATC '18 website; rejected submissions will be permanently treated as confidential.

Simultaneous submission of the same work to multiple venues, submission of previously published work, or plagiarism constitutes dishonesty or fraud. USENIX, like other scientific and technical conferences and journals, prohibits these practices and may take action against authors who have committed them. See the USENIX Conference Submissions Policy at www.usenix.org/conferences/submissions-policy for details.

Note that the above does not preclude the submission of a regular full paper that overlaps with a previous short paper or workshop paper. However, any submission that derives from an earlier paper must provide a significant new contribution (for example, by providing a more complete evaluation), and must explicitly mention the contributions of the submission over the earlier paper. If you have questions, contact your program co-chairs, atc18chairs@usenix.org, or the USENIX office, submissionspolicy@usenix.org.

Authors will be notified of paper acceptance or rejection by April 21, 2018. Acceptance will typically be conditional, subject to shepherding by a program committee member.

Poster Session

The poster session is an excellent forum to discuss ideas and get useful feedback from the community. Posters and demos for the poster session will be selected from all the full paper and short paper submissions by the poster session chair. If you do not want your submissions to be considered for the poster session, please specify on the submission website.

Program and Registration Information

Complete program and registration information will be available in April 2018 on the conference website.