HotCloudPerf'24 Workshop Chairs' Welcome

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It gives us immense pleasure to extend a warm welcome to you for the 2024 edition of the Workshop on Hot Topics in Cloud Computing Performance – HotCloudPerf 2024.

Cloud computing represents one of the most significant transformations in the realm of IT infrastructure and usage. The adoption of global services within public clouds is on the rise, and the immensely lucrative global cloud market already sustains over 1 million IT-related jobs. However, optimizing the performance and efficiency of the IT services provided by both public and private clouds remains a considerable challenge. Emerging architectures, techniques, and real-world systems entail interactions with the computing continuum, serverless operation, everything as a service, complex workflows, auto-scaling and -tiering, etc. The extent to which traditional performance engineering, software engineering, and system design and analysis tools can contribute to understanding and engineering these emerging technologies is uncertain. The community requires practical tools and robust methodologies to address the hot topics in cloud computing performance effectively.

In response to this demand, the HotCloudPerf workshop offers a platform for academics and practitioners in the field of cloud computing performance. The workshop seeks to foster engagement within this community and fosters the development of new methodological approaches to achieve a deeper comprehension not only of cloud performance but also of cloud operation and behavior. This is to be achieved through a diverse array of quantitative evaluation tools, including benchmarks, metrics, and workload generators. The workshop places emphasis on exploring novel cloud attributes such as elasticity, performance isolation, dependability, and other non-functional system properties, alongside traditional performance-related metrics such as response time, throughput, scalability, and efficiency.

Following a rigorous review process, HotCloudPerf 2024 featured seven full papers, two short papers and one demo. Furthermore, we are delighted to announce that the workshop will include three keynote talks, delivered by the following speakers.

- Josef Spillner is a senior lecturer/associate professor for computer science at Zurich University of Applied Sciences, Switzerland. His research activity focuses on distributed application computing paradigms. Particular emphasis is on technological support for emerging digitalisation needs of industry and society, such as smart cities and mobility. He will give a talk on the topic: "Upscaling messaging and stateful computation".
- Robert Chatley holds the position of Director of Software Engineering Practice at Imperial College London. His role at Imperial combines a strong focus on education with industry-focused research. Robert has worked with many companies, from startups to multinationals, variously either as a trainer/coach, as a consultant on technical practice, or working as part of engineering leadership. He will give a talk on the topic: "Continuous Developer Feedback for Cloud Native Systems".
- Sasko Ristov is an Assistant Professor for computer science at the University of Innsbruck, Austria. His main research interests include performance modeling and optimization of distributed systems and applications. In particular, he focuses on serverless computing, cloud engineering, and cloud federation. His talk is on the topic: "Engineering serverless application life-cycles in federated serverless infrastructures".

The HotCloudPerf 2024 program committee was composed of the following members: Alexandru Iosup (VU, NL), Nikolas Herbst (U. Würzburg, DE), Cristina Abad (ESPOL, ECU), Auday Al-Dulaimy (Mälardalen University, SE), Andre Bondi (Software Performance and Scalability Consulting LLC, US), Wilhelm Hasselbring (University of Kiel, DE), Dragi Kimovski (University of Klagenfurt, AT), Tania Lorido (Roblox, US), Tiziano De Matteis (VU, NL), Narges Mehran (University of Klagenfurt, AT), Zahra Najafabadi (University of Klagenfurt, AT), Issam Rais (The Arctic University of Norway, NO), Prateek Sharma (Indiana University Bloomington, US), Josef Spillner (ZHAW School of Engineering, CH), Sacheendra Talluri (VU, NL), Klervie Toczé (Linköping University, SE), Petr

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Tůma (Charles University, CZ), André van Hoorn (University of Hamburg, DE), Chen Wang (IBM, US).

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This seventh edition of the HotCloudPerf is supported by the EU Graph-Massiviser project. The HotCloudPerf workshop is technically sponsored by the Standard Performance Evaluation Corporation (SPEC) Research Group (RG), and is organized annually by the RG Cloud Group. HotCloudPerf has emerged from the series of yearly meetings organized by the RG Cloud Group, since 2013. The RG Cloud Group group is taking a broad approach, relevant for both academia and industry, to cloud benchmarking, quantitative evaluation, and experimental analysis.