

2020 USENIX Conference on Operational Machine Learning (OpML '20) July 28–August 7, 2020

Tuesday, July 28

Session 1: Deep Learning

- DLSpec: A Deep Learning Task Exchange Specification** 1
Abdul Dakkak and Cheng Li, *University of Illinois at Urbana-Champaign*; Jinjun Xiong, *IBM T. J. Watson Research Center*;
Wen-mei Hwu, *University of Illinois at Urbana-Champaign*

Wednesday, July 29

Session 2: Model Life Cycle

- Finding Bottleneck in Machine Learning Model Life Cycle** 5
Chandra Mohan Meena, Sarwesh Suman, and Vijay Agneeswaran, *WalmartLabs*

Thursday, July 30

Session 3: Features, Explainability, and Analytics

- Detecting Feature Eligibility Illusions in Enterprise AI Autopilots** 9
Fabio Casati, Veeru Metha, Gopal Sarada, Sagar Davasam, and Kannan Govindarajan, *ServiceNow, Inc.*
- Time Travel and Provenance for Machine Learning Pipelines** 13
Alexandru A. Ormenisan, *KTH - Royal Institute of Technology and Logical Clocks AB*; Moritz Meister, Fabio Buso,
and Robin Andersson, *Logical Clocks AB*; Seif Haridi, *KTH - Royal Institute of Technology*; Jim Dowling, *KTH - Royal
Institute of Technology and Logical Clocks AB*
- An Experimentation and Analytics Framework for Large-Scale AI Operations Platforms**17
Thomas Rausch, *TU Wien and IBM Research AI*; Waldemar Hummer and Vinod Muthusamy, *IBM Research AI*
- Challenges Towards Production-Ready Explainable Machine Learning** 21
Lisa Veiber, Kevin Allix, Yusuf Arslan, Tegawendé F. Bissyandé, and Jacques Klein, *SnT – Univ. of Luxembourg*

Friday, July 31

Session 4: Algorithms

- RIANN: Real-time Incremental Learning with Approximate Nearest Neighbor on Mobile Devices** 25
Jiawen Liu and Zhen Xie, *University of California, Merced*; Dimitrios Nikolopoulos, *Virginia Tech*; Dong Li,
University of California, Merced

Tuesday, August 4

Session 5: Model Deployment Strategies

- FlexServe: Deployment of PyTorch Models as Flexible REST Endpoints** 29
Edward Verenich, *Clarkson University and Air Force Research Laboratory*; Alvaro Velasquez, *Air Force Research
Laboratory*; M. G. Sarwar Murshed and Faraz Hussain, *Clarkson University*

Wednesday, August 5

Session 6: Applications and Experiences

- Auto Content Moderation in C2C e-Commerce** 33
Shunya Ueta, Sukanprabu Nagaraja, and Mizuki Sango, *Mercari Inc.*
- Challenges and Experiences with MLOps for Performance Diagnostics in Hybrid-Cloud Enterprise Software
Deployments** 37
Amitabha Banerjee, Chien-Chia Chen, Chien-Chun Hung, Xiaobo Huang, Yifan Wang, and Razvan Chevesaran, *VMware Inc.*