Matteo Olivi

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Education

PhD in Computer Science, Georgia Institute of Technology, USA 2023 - 2028
Researching disaggregated memory in cloud data centers with Prof. Gavrilovska
and performance management of microservices with Prof. Pu.

M.S. in Computer Engineering, University of Bologna, Italy 2016 - 2020
Final grade: 110 with honors / 110.

B.S. in Computer Engineering, University of Bologna, Italy 2013 - 2016
Final grade: 110 with honors / 110.

University of Minnesota, College of Engineering, USA (9 months) 2015 - 2016
Undergraduate visiting student for 9 months.

Experience

Cloud Platform Engineer, anynines GmbH, Germany October 2020 - June 2023
Building a Kubernetes-based platform for full life cycle management
at scale of different databases via a unified (as much as possible) interface.

Visiting Student, IBM Research, USA (5 months) 2018 - 2019
Worked under Dr. Michael Spreitzer on building cloud control planes
using Kubernetes API machinery and Kubernetes controller design pattern.

Tech skills

Recently used   Kubernetes, Go, Docker, Prometheus, Git.
Used in the past C, Java, SQL, Linux, relational databases, web development.

Projects and open source contributions

KOS: Kubernetes Openvswitch SDN (together with Dr. Michael Spreitzer)
SDN control plane built with the Kubernetes API machinery and controller pattern to test
that they are general building blocks that can be used for other cloud control planes as well.

Kubernetes contributions
Discovered and fixed severe bugs that led to critical safety violations, such as (issue, PR);
(issue, PR); (issue, PR).
Added features to test doubles to quickly unit test functionality without deploying a
real cluster, in pairing with the intern I was supervising (Paul Eichler) to train him (PR).

Media

KubeCon EU 2020 talk - Building a SDN Using K8s API Machinery and Controllers
Gave a virtual presentation on KOS, the SDN control plane I co-built while at IBM.

IBM cloud blog - Using Fio to Tell Whether Your Storage is Fast Enough for Etcd
Co-wrote a blog post that is now referenced from the official etcd documentation.

The New Stack - Writing Custom Kubernetes Controllers: Beware of State Drift
Wrote a blog post about a difficult yet insufficiently mentioned challenge when writing custom
Kubernetes controllers.