
# Pamela Delgado

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https://pamedelgado.org


## Scientific interests

- Efficient resource management
- Systems for ML
- Big data
- Reproducibility
- Cloud computing
- Data science

## Education

2018. **PhD in Computer Science**
Hybrid, Job-Aware, and Preemptive Datacenter Scheduling
EPFL – Switzerland

2012. **Master in Computer Science**
Specialization: Foundations of Software. GPA 5.36/6
EPFL – Switzerland

2008. **Bachelor in Systems Engineering**
Graduated with honours
UCB – Bolivia

2006. **Exchange student**
Pontificia Universidad Católica de Chile – Chile

## Languages

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|---|---|
| French | ●●●● |
| English | ●●●● |
| Spanish | ●●●● |
| German | ●○○○ |
| Italian | ●●●○ |

## Current situation

2022 – current **Assistant Professor UAS**
Helped conceiving and starting a new Data Engineering Bachelor orientation from scratch at Informatique et Systèmes de Communication (ISC) at the School of Engineering in Sion. Actively participated in the decision making and various pedagogical activities regarding the bachelor program.

Applied for a variety of internal and external funding and carried out projects as a PI and/or in collaboration with both academic and industrial partners. Coordinator of shared computing infrastructures and cybersecurity for Sion.

2019 – current **Lecturer** EPFL - SDSC.

## Professional Experience

2018-2022 **Lecturer – Senior Systems Engineer**
Swiss Data Science Center – EPFL
Renku Data Science Platform https://renkulab.io

2013-2018 **Doctoral researcher & Teaching assistant**
EPFL, Scheduling in Big Data clusters. Lausanne, Switzerland.

2013 **Research Intern in System & Networking**
Microsoft Research, Fabric computing simulation. Cambridge, UK.

2011 **Summer Intern**
KeyLemon SA, Face recognition App for Android. Martigny, Switzerland.

2009 – 2010 **Software Engineer**
Outsourcing for Enable Consultants, Recess web application for Canadian schools. Toronto, Canada.

2006 - 2009 **Software Engineer**
PirAMide Informatik SRL. Medical imaging and digital dictation modules. In partnership with Medspazio. Geneva, Switzerland.

## Teaching Experience

2024 **Pedagogical training HES-SO**.

2024 – present **Big Data and Infrastructures for ML**, Bachelor HES-SO.

2024 – present **Beyond Relational DBs**, Bachelor HES-SO.

2023 – present **Operating Systems**, Bachelor HES-SO.

2020 – present **Large-scale data science for real-world data**, Master EPFL.

2020 **Critical Data Studies**, Lecturer, Master EPFL.

2019 **Introduction to Operating Systems**, Lecturer, Bachelor EPFL.

2017 **Analysis I**, Teaching assistant, Bachelor EPFL.

2012 – 2017 **Operating Systems**, Teaching assistant, Bachelor EPFL.

2016 **Programming I**, Teaching assistant, Bachelor EPFL.

2016 **Information-communication-computation**, Teaching A., Bachelor EPFL.

2005 **Operating Systems**, Teaching assistant, Bachelor UCB, Bolivia.

## Awards & Achievements

2023 - present Swiss Young Academy member.

2019 Honorable mention. Distinguished disertation award. SPEC.

2019 Thesis nominated for EPFL's Doctoral Program Distinction. EPFL.

2013 - 2018 Microsoft Research Grant. Towards Resource Efficient Datacenters.

2013 Google Anita Borg Memorial Scholarship EMEA. Google Inc.

2010 - 2012 Swiss Federal Scholarship for Foreign Students. Swiss Confederation.

2006 Academic Excellence Scholarship. Pontificia Universidad Católica de Chile.

## Student Supervision

EPFL Master - Sami Ferchiou (2024)

EPFL Master - Vittorio Rossi (2024)

HES-SO Bachelor - Samuli Lehtinen (2023)

## Service

Eurosys 2026 PC member

CCGRID 2025 PC member

AMLD 2025 track chair: AI in data and computer systems

AI days HES-SO Program Chair

ACM SoCC 2024 PC member

CCGRID 2024 PC member

ACM SoCC 2023 PC member

Eurosys 2023 PC member

JPDC 2023 reviewer

UCC/BDCAT 2022/2023 artifact evaluation chair

SC23 artifact reviewer

ICPP 2023 Repr. PC member

IEEE/ACM UCC 2021 artifact reviewer

JCC 2021 reviewer

TPDS 2021/2018 reviewer

T-ASE 2016 reviewer

SDSC project call reviewer

CHIST-ERA 2023 ORD project reviewer

CH leading house MENA project reviewer

## Technical Skills

DevOps: Kubernetes (Openstack, GKE, AKS), Docker, Terraform, Packer, CI/CD
Programming languages: Java, Python, Scala, C++
BigData: Spark, Hadoop, HDFS
Operations: Gitlab, Keycloak, Prometheus, Grafana, Sentry
MLOps: Tensorflow, Jupyter
Release management.
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## Projects, Collaborations & Grants

2025 - 2027 *Opticloud: Optimizing cloud utilization and impact.* Inter-domain project HES-SO.

2025 - 2028 *DEEP: Deep Learning Resource-Efficient GPU Orchestrator.* Project funding SNSF. Co-investigator scheme with ITU Copenhagen.

2024 - present *PI at Swiss AI initiative* `https://www.swiss-ai.org/`. Horizontal Infrastructures.

2023 - 2024 *Pilot project with Lonza.* ADRP - Anomaly Detection Platform for Biomanufacturing.

2023 - present *Swiss AI center for SMEs.* Flagship project for HES-SO.

2023 *Energy EmoMaps.* Interdisciplinary project funded by Axe TN. HES-SO.

2020 *EasyFAIR.* Swissuniversities. In collaboration with ETHZ, ZHAW, HSLU.

2019 *Renku GCP credits.* Google Cloud Platform GCP research credits grant.

2021 *Renku Integration at FSO.* Mandate with the Federal Statistics Office.

2020 *BAG Health Data Science.* COVID Task Force Collaboration.

2020 *Air-gapped Renku deployment.* Health2030 Genome Center Collaboration.

2019 *Renku deployment at Openshift.* Mandate and collaboration with Red Hat.

2013 - 2018 *Towards Resource Efficient Datacenters.* Grant from Microsoft Research. Swiss Joint Research Center.

2013 *Research intern in Systems and Networking* Simulation Research for Fabric Computers, Microsoft Research Cambridge. Anthony Rowston.

2012 *Domain Specific Language for Distributed Algorithms in Scala.* Master project. LSR, EPFL Prof. André Schiper

## Publications

ADRP - Anomaly Detection Platform for Biomanufacturing. D Petrovic, P Delgado, H Engelking, F Carrino. *AI days HES-SO.* **(2025)**

Towards reproducible software studies with MAO and Renku. J Spillner, P Gkikopoulos, P Delgado, C Choirat. *SoftwareX. 17(100947).* **(2022)**

Kairos: Preemptive Data Center Scheduler Without Runtime Estimates. P Delgado, D Didona, F Dinu, W Zwaenepoel. *The ACM Symposium on Cloud Computing (SoCC). Carlsbad, CA, USA.* **(2018)**

Job-Aware Scheduling in Eagle: Divide and Stick to Your Probes. P Delgado, D Didona, F Dinu, W Zwaenepoel. *The ACM Symposium on Cloud Computing (SoCC). Santa Clara, CA, USA.* **(2016)**.

Eagle: A Better Hybrid Data Scheduler. P Delgado, D Didona, F Dinu, W Zwaenepoel. *Poster 11th European Conference on Computer Systems (EuroSys). London, UK.* **(2016)**.

Hawk: Hybrid Datacenter Scheduling. P Delgado, F Dinu, AM Kermarrec, W Zwaenepoel. *The USENIX Annual Technical Conference (ATC). Santa Clara, CA, USA.* **(2015)**.

Distal: A Framework for Implementing Fault-tolerant Distributed Algorithms. M Biely, P Delgado, Z Milosevic, A Schiper. *43rd Annual IEEE/IFIP International Conference on Dependable Systems and Networks (DSN). Budapest, HU.* **(2013)**.

Efficiently Scheduling Data-Parallel Computations on Very Large Clusters. P Delgado, K Elmeleegy, AM Kermarrec, W Zwaenepoel. *Poster at the European Conference on Computer Systems EuroSys. Prague, CZ.* **(2013)**.

## Invited Talks & Events

AMLD - AI in data and computer systems track organizer and moderator. **2025**

17th Cloud Control Workshop (invite only), June 18-20, Skåvsjöholm, Sweden. **2024**.

Organization of AI Days hosting at HES-SO Valais-Wallis. **2024, 2025**

Dagstuhl Seminar Resource-Efficient Machine Learning, Jul 28 - Aug 02. Dagstuhl, Germany. (invite only) **2024**

Organization of Renku & Data Science Talks, with external and internal speakers. **2019-2022**

15th Cloud Control Workshop (invite only), June 11-13, Sandhamn, Sweden. **2019**.

13th Cloud Control Workshop (invite only) , June 13-15, Skåvsjöholm, Sweden. **2018**

Kairos: Preemptive Data Center Scheduling Without Runtime Estimates.
Università della Svizzera italiana USI, Lugano, Switzerland**(2019)**

Towards Resource Efficient Datacenters - Closing summary.
Microsoft Swiss JRC workshop 2018. EPFL Lausanne, Switzerland. **(2018)**

Job-aware Scheduling in Eagle: Divide and Stick to Your Probes.
Ecocloud Annual Event. Lausanne, Switzerland. **(2017)**

Towards Resource Efficient Datacenters - Eagle.
Microsoft Swiss JRC Workshop 2017. MSR Cambridge, United Kingdom. **(2017)**

Job-aware Scheduling in Eagle: Divide and Stick to Your Probes.
Eurosys Shadow PC meeting. Google Zurich, Switzerland. **(2017)**

Hawk: Hybrid Datacenter Scheduling.
Annual EPFL INRIA Workshop 2017. Rennes, France. **(2017)**

Job-aware Scheduling in Eagle: Divide and Stick to Your Probes.
ACM Symposium on Cloud Computing (SoCC). Santa Clara, US. **(2016)**

Job-aware Scheduling in Eagle: Divide and Stick to Your Probes.
Microsoft Systems and Networking Group Meeting. Microsoft Research Lab Redmond, US. **(2016)**

Job-aware Scheduling in Eagle: Divide and Stick to Your Probes.
Nutanix. Santa Clara, US. **(2016)**

Towards Resource Efficient Datacenters - Hawk.
Microsoft Swiss JRC workshop 2016. ETHZ Zurich, Switzerland. **(2016)**

Hawk: Hybrid Datacenter Scheduling
Usenix Annual Technical Conference (ATC). Santa Clara, US. **(2015)**

Big Data: au-delà des systèmes distribués.
Presentation to School Students (Présentation aux gymnasiens). EPFL Lausanne - Switzerland. **(2014)**