Pamela Delgado

pamela.delgado@epfl.ch
https://pamedelgado.org

Scientific interests

- Distributed computing
- 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 Catolica de Chile – Chile

Languages

French	●●●●
English	●●●●
Spanish	●●●●
German	●○○○
Italian	●●○○

Current situation

Dec. 2018 – current **Lecturer – Senior Systems Engineer**
Swiss Data Science Center – EPFL
Renku: Reproducible and Collaborative Data Science Platform
https://renkulab.io

Professional Experience

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.

2008 – 2009 **Software Engineer**
PirAMide Informatik SRL. Medical imaging and digital dictation modules. Cochabamba, Bolivia. In partnership with Medspazio. Geneva, Switzerland.

2006 – 2008 **Software Engineer**
PirAMide Informatik SRL. EJB Automatic Migration Tool. Information systems development. Cochabamba, Bolivia.

Teaching Experience

2020 – present **Large scale data science**, Lecturer, Master EPFL.

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

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

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

2017 **Operating Systems Implementation**, T. 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

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.

2012 Master's Final Project maximum score. EPFL.

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

2008 Bachelor's Final Project maximum score. UCB.

2006 Academic Excellence Scholarship. Pontificia Universidad Católica de Chile.

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, R Studio, Jupyter
Release management.
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Review Committees

SDSC Data science project evaluation committee.

14th IEEE/ACM UCC 2021 artifact evaluation committee

IEEE Int. Conf. on Joint Cloud Computing 2021 JCC 2021

IEEE Trans. on Parallel and Distributed Systems 2021

IEEE Trans. on Parallel and Distributed Systems TPDS 2018

IEEE Trans. on Automation Science and Engineering T-ASE 2016,

Eurosys 2018, Eurosys 2017

Projects, Collaborations & Grants

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

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

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

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

2020 *Deploying Renku in an offline environment.* Collaboration with the Health2030 Genome Center.

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 *Large-scale task scheduling in Hadoop* LABOS, EPFL Prof. Willy Zwaenepoel

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

2011 *Invariant Verifier for Parallel Programs* Semester project LAMP, EPFL Prof. Martin Odersky

2011 *STAMP in Java: Benchmark for Software Transactional Memory*Semester project LPD, EPFL Prof. Rachid Guerraoui

Publications

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 at 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, Hungary.* **(2013)**.

Efficiently Scheduling Data-Parallel Computations on Very Large Clusters. P Delgado, K Elmeleegy, AM Kermarrec, W Zwaenepoel. *Poster at the 8th European Conference on Computer Systems (EuroSys). Prague, Czech Republic.* **(2013)**.

Invited Talks & Events

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)**