

# Valentin Reis | Postdoctoral Appointee

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Age: 27 • Nationality: French.

I am a computer science postdoctoral appointee proficient with:  
Machine learning, functional programming, IT infrastructure.

## Employment

### Argonne National Laboratory, USA

*Postdoctoral Appointee*, October 2018 - Current.  
Using online learning methods to reconfigure compute resources on the fly. My work aims to improve the energy/computation ratio on the upcoming Aurora exascale system.

### Inria and Grenoble Alpes University, France

*Computer Science PhD*, 2015 – September 2018.  
Improved user metrics in High Performance Computing (HPC) platforms using learning methods.

### University of Warsaw, Poland

*Research Intern*, 2015 - 4 months.  
Researched supervised learning-based decision making policies for parallel job scheduling, worked on data analysis on cloud computing workload traces.

### Informatics Laboratory of Grenoble, France

*Research Intern*, 2014 - 3 months.  
Applied supervised learning to application runtime prediction in High Performance Computing.

### University of Sao Paulo, Brasil

*Research Intern*, 2013 - 4 months.  
Wrote a compute cluster simulator for the purpose of evaluating fair-share scheduling algorithms on compute clusters.

## Education

- **PhD - Computer Science (2015-2018)**  
*Inria/Grenoble Alpes University*
- **MSc - Computer Science (2013-2015)**  
*Ensimag/Grenoble Alpes University*
- **Bachelors - Applied Mathematics (2013)**  
*Grenoble Alpes University*

## Skills

### Machine Learning

I know enough applied math, statistics and optimization to work at all levels of ML projects. This can be near the application domain with data characterization, extracting potential applications, designing pipelines and engineering features. I can also work closer to the learning methods and develop, implement and evaluate models/losses/optimizers.

★ Online Learning   ★ Bandits  
★ Numerical Optimization   Matlab   Sklearn

### Infrastructure

I have experience with writing programmatic/declarative configuration, provisioning systems, deploying services, and running complex computational workflows on large-scale infrastructures. I know my way around a GNU/Linux system - although I'm no kernel hacker.

★ GNU/Linux   ★ HPC   ★ NixOS   AWS/GCE  
Spark   ELK   ZeroMQ

### Software

I love writing software.. Most of my output is numerical or simulation code, which means specialized problems with low systemic complexity. I am proactive in pushing my skills in this area however and can version control, test, package, document, publish. I have written and maintain a few open-source packages. Lately, I'm writing a lot of Haskell and Nix.

★ Python   ★ R   ★ Ocaml   ★ Haskell   ★ Bash  
C/C++   Java   Cython   SQL   ★ Nix

## Communication

- **French:** Native
- **English:** Fluent
- **Spanish, German, Portuguese:** Beginner