Alejandro Carderera de Diego

alejandro.carderera@gatech.edu

EDUCATION

08/2018-Present **Georgia Institute of Technology, ISyE**. Atlanta, GA, USA.
Ph.D. in Machine Learning. Cumulative GPA: 4.0/4.0
Advisor: Sebastian Pokutta.

- Locally Accelerated Conditional Gradients (To appear on the 23rd International Conference on Artificial Intelligence and Statistics)
- Second-order Conditional Gradient Sliding (arXiv: 2002.08907)

8/2014-7/2016 **Cornell University, College of Engineering**. Ithaca, NY, USA.
Master of Science in Applied and Engineering Physics. GPA: 4.01/4.3
Henry S. Sack Memorial Award (Academic Performance).

- Drop Electrohydrodynamics (Master's Thesis)

8/2010-7/2014 **Universidad Politécnica de Madrid, ETSII.** Madrid, Spain.
Bachelor of Science in Industrial Engineering.
Major in Energy Engineering. GPA: 7.7/10

- Mobile frontier problems in the context of the Finite Element Method (FEM) (Bachelor's Thesis)

EXPERIENCE

7/2020-8/2020 **J.P. Morgan Chase**
Quantitative Analyst, Summer Associate

9/2016-7/2018 **HP Inc., Large Format and 3D Printing**
R&D Engineer, System integrator

- Solving and analyzing complex development problems at the intersection of mechanical, electrical engineering and computer science
- Development of computer vision tools to automate the quality grading of the products developed
- Performing experiments to improve various aspects of the engineering process and designing machine learning tools to analyze/interpret the data

8/2015-6/2016 **Cornell University, College of Engineering**
Graduate Research Assistant

- Developed new mathematical scheme for the coupling of the electric field and the Navier-Stokes equations, to simulate electrohydrodynamic phenomena
- Benchmarked solution with the canonical case of a dielectric drop suspended in an electric field

6/2015-8/2015 **Tel Aviv University, Department of Materials Science and Engineering**
Graduate Research Intern

- Intensive three-month summer internship, characterization of properties of promising photovoltaic materials, employing first-principle atomic simulations

6/2013-7/2014 **Universidad Politécnica de Madrid, ETSII**
Undergraduate Research Assistant

- Development of new numerical schemes to simulate mobile frontier problems in fluid mechanics in the Semi-Lagrangian framework (Finite Element Method)

AWARDS

Henry S. Sack Memorial Award: Top Academic Performer (Cornell, 2014-2016)
Research Collaboration Scholarship (Spanish Ministry of Education-2014)
Excellence Scholarship & Top Academic Performer (Autonomous Community of Madrid-2010)

SKILLS

Tools: C++, Python, Fortran, MATLAB, LaTeX, Linux
Languages: Spanish, English, French (intermediate level)