

Juan Elenter

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EDUCATION

University of Pennsylvania

PhD candidate, ESE department.

Main interests: Optimization, Signal Processing, Machine Learning.

Philadelphia, United States

Fall 2021 - present

Universidad de la República

Bsc. Electrical Engineering, Signal Processing.

Montevideo, Uruguay

2016 - 2020

EXPERIENCE

Research.....

Flatiron Institute, Simons Foundation

Summer intern at the Center for Computational Mathematics

New York, USA

Summer 2022

- Worked on stochastic optimization methods that yield near interpolators with Robert Gower.

Stanford

Visiting student at KundajeLab

Remote

Spring 2021

- Worked on motif discovery through chromatin accessibility prediction under the supervision of Prof. Anshul Kundaje. Designed and trained BPNet neural networks to find cell-type specific motifs that potentially play a role in gene expression and regulation.

CERN

Summer intern at the Compact Muon Solenoid Experiment

Geneva, Switzerland

Summer 2020

- Interned at the data visualization team of the CMS experiment under the supervision of Dr. Kati Lassila Perini.

Papers.....

- A Lagrangian Duality Approach to Active Learning.
Elenter, NaderiAlizadeh, Ribeiro. (NeurIPS 2022)

Industry.....

ProteanTecs

Signal Processing Intern

Haifa, Israel

Summer 2019

- Built models to predict IDDQ spikes in integrated circuits by using voltage and cycle time measurements at various locations in the chip. Improved accuracy of previous model by 6%.

IBM

Full Stack Developer

Montevideo, Uruguay

2018-2019

- **IoT** Built IBM Cloud interface to monitor current sensors via the SNMP protocol and Node Red.
- **Forest Fire Detection** Worked on CNNs to detect forest fires with low quality, long distance security cameras using IBM Watson.

SKILLS

- Programming Languages: Python (preferred), C++, Matlab, C, SQL
- ML frameworks: PyTorch (preferred), Tensorflow, Sklearn
- Languages: Fluent in *English*, *Spanish* and *French*.

OTHER

- Former player of the Uruguayan Waterpolo National Team
- NASA 2019 Space App **Hackaton**: Global Finalist
- **Teleton Electric Wheelchair**: Designed and built an electric wheelchair for 3 to 5 year old children with reduced leg mobility. Worked both on hardware and control software.
- Exchange student at INSA Lyon, France, in 2018.