Education

2019-2021 Msc, Computer Science and Engineering (Expected)

Master in Innovation and Research in Informatics, with specialization in Data Science (MIRI-DS) at **Universidad Politécnica de Catalunya (UPC)**, Barcelona

2017 Big Data Diploma

A postgraduate Diploma (144 hrs) on Big Data at the **Pontificia Universidad Católica de Chile (PUC)**, Santiago, Chile.

2008-2016 Bsc, Electrical Engineering

BSc in Electrical Engineering (Six years degree), with specialization in Power Systems at **Universidad de la Frontera (UFRO)** in Temuco, Chile

- Final grade 6.2 of 7.0
- Final project on *"Digital Substation: State of the art technologies and development of test modules using ABB devices"*

2014-2015 Academic Exchange

Academic exchange in the **Ruhr-Universität Bochum (RUB)** at Bochum (NRW), Germany, thanks to a scholarship granted by the German Academic Exchange Service (DAAD)

Work Experience

Software and Data Engineer at CIAE, Universidad de Chile (_Current position_)

- From November 2017 to August 2019 (~1.5 years).
- Backend python developer and data engineer, with experience in public and private research projects related to education and social development.
- Developed extensible python ETL pipelines for cleaning and validating data obtained from the public sector in Chile.
- Participated as a teacher assistant in a training course on *"Data Science and Public Analytics"* for people of the *Chilean Department of Social Development* (English for *Ministerio de Desarrollo Social*)
- Developing currently a web platform to manage visualizations related to the Public Education Sector in Chile, using Flask, Docker and create-react-app

Read more about the *Advanced Education Research Center* (english for *Centro Avanzado de Investigación en Educación de la Universidad de Chile*) in www.ciae.uchile.cl (spanish)

Project Engineer at ABB Chile

- From June 2015 to June 2017 (two years)
- Substation Control, Protection and Automation Engineer in the Power Grid - Grid Automation division (PGGA)
- Acted as a technical lead in +10 substation automation projects ranging from simple to mid complexity across Chile.
- Develop project schedules under constraints, interacting with all the units involved.
- Provided technical assistance to the Supply Chain and the Contract Management areas.
- Acted as a technical specialist of the ABB's Digital Substations and IEC 61850 portfolio in Chile, supporting sales and performing as a speaker in conferences and training courses.
- Led projects that required delegating tasks and managing small teams from other countries within ABB.

Read more about ABB in www.abb.cl

Tools, Skills and Programming Languages

- I'm comfortable using Debian based Linux distros.
- I'm proficient with **Python 3**. I have experience using the following packages (beware that this list is not exhaustive):

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- `Flask`
- `SQLAlchemy`
- `Alembic`
- `Click`
- `pytest`
- `pandas`
- `numpy`
- `scikit-learn`
```

You can check my results from a PluralSight python assessment I took in 2017, which is on my StackOverflow profile. I've improved since then.

- I'm fairly productive with **git**. You can check my LinkedIn assessment results.
- I have experience deploying small applications on **Azure** VMs and **Amazon** EC2.
- I try to use **Docker** and **PostgreSQL** in my projects.
- I have experience (and I like) **teaching**.

Human languages

- Spanish (Native)
- English C1 (IELTS Academic certification, 2018)
- German B2/C1 (Test DaF certification, 2014)
- I'm also currently learning Catalá at the *Consorci per a la Normalització Lingüística* in Barcelona

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Areas of interest

I would like to contribute to solutions in one or more of these areas:

- Smart Grids and Smart Cities
- Architecture and Engineering of Distributed Applications
- Data Science for the Social Good and Public Policies
- Intelligence, as in *Artificial Intelligence*