



# Catalina Carabajal

Nuclear Engineer

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in [catalina-carabajal](https://catalina-carabajal.github.io)  
🐙 [github.com/catwin94](https://github.com/catwin94)  
🌐 [catwin94.github.io](https://catwin94.github.io)

## SUMMARY

I am Catalina CARABAJAL. In recent years I decided to change my career focus to the programming side. To that end I started taking courses of Web Development mainly and some Data Science and Python. I am currently looking for junior positions on that area.

## WORK

### Researcher / Nov 2019 - Oct 2021

#### CEA - France

Development of advanced perturbation and sensitivity methods for Monte Carlo simulations.

Submitted paper at [PHYSOR 2022](#)

C++ Tripoli-4 Git Python Linux

### Internship / Sep 2018 - Mar 2019

#### CNRS - France

Fast neutron detection (10 keV up to 20 MeV) with MIMAC-FastN, a 3D nuclear recoil track detector studying nuclear reactions for neutron production:  $9\text{Be}(d, 1.5 \text{ MeV}), n$ ,  $9\text{Be}(p, 3.6 \text{ MeV}), n$  and  $7\text{Li}(p, 2.5 \text{ MeV}), n$ .

C++ Linux

### Summer Internships / Jan - Feb

#### CNEA - Argentina

- **2017** Internship at Constituyentes Atomic Center
- **2016** Internship at Ezeiza Atomic Center
- **2015** Internship at Bariloche Atomic Center

Publication at XLII AATN.

CYPE - Metal 3D

## PROJECTS

### e-commerce

🐙 <https://github.com/catwin94/e-commerce>

🌐 <https://catwin94.github.io/e-commerce/>

A React.js project entirely designed by myself using all the tools I learned from courses.

ReactJS Redux Route Json API SASS  
JavaScript CSS HTML

### stone-paper-scissor

🐙 <https://github.com/catwin94/stone-paper-scissor>

🌐 <https://catwin94.github.io/stone-paper-scissor/>

My first basic project combining JS, HTML and CSS.

JavaScript CSS HTML

## Courses

### Frontend Developer / Platzi

HTML CSS SASS grid & flexbox responsive

### Basic Javascript / Platzi

JavaScript

### Modern Javascript Definitive Guide / Udemy

JavaScript DOM React OOP

### React.js practice course / Plazi

ReactJS Route Redux React Hooks

### Frameworks and Libraries of JavaScript / Plazi

React functional components Styled components

CSS-in-JS

### Python Introductory course / IEEE - ITBA

Python

### Data Analysis / IEEE - ITBA

Python Pandas Numpy Matplotlib

## EDUCATION

### Nuclear Engineer - Jul 2018

Master - **8.25/10.00 (top 1%)**

Instituto Tecnológico Dan Beninson (IDB), Argentina  
Vice-President & Co-founder of the Student Center IDB

**Thesis** Deterministic analysis of the RA-10 loop in presence of a LOFA in relation with different flywheels using the thermo-hydraulic simulation software RELAP.

RELAP

## SKILLS

**Languages:** Spanish native, English advanced, French beginner

**Programming:** Python, C++, Matlab, JavaScript

**Web:** ReactJS, HTML, CSS, SASS, Json, Redux

**Data Science:** Pandas, Numpy, Matplotlib

**Other:** Git, Unix, Tripoli-4, RELAP, Autodesk - AutoCAD 2D, MCNP - Los Alamos National Lab, Mathcad PTC, GammaVision (Gamma Spectroscopy)