

# Vinicius Renan de Carvalho

## Artificial Intelligence Engineer



My I.T. career started with Web Development, more precisely with PHP and Java EE development, coding web services and systems. After four years of experience, I decided to full-time study Artificial Intelligence and its applications as a graduate student. In this field, I'd been studying Evolutionary Computation and Machine Learning in the past four years, applying A.I. to real-world problems. Currently, I have been studying the combination of multi-agent, evolutionary computation, and machine learning techniques in order to produce autonomous algorithms. Also, I have been studying Deep Learning and other machine learning techniques.

### Contact

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### Education

2016 – 2019

**University of São Paulo (USP)**

PhD in Computer Engineering, Artificial Intelligence

2014 – 2015

**Federal University of Parana (UFPR)**

Master degree in Computer Science, Search Based Software Engineering

2009 – 2012

**University Western Sao Paulo (Unoeste)**

Bachelor degree in Information Systems

### Work Experience

#### Doctoral Fellow – 2016 to Present

University of São Paulo – São Paulo, Brazil

My research entitled "Multi-Agent Election Based Hyper-Heuristic" focus on online selecting the most suitable Multi-Objective Evolutionary Algorithms (MOEA) in order to find solutions for discrete problems (such as TSP) and continuous (such as vehicle crashworthiness). This research employs Social Choice techniques and considers MOEAs as agents.

#### Masters Fellow – 07/2014 to 12/2015

Federal University of Parana – Curitiba, Brazil

During my master degree I studied several topics of Artificial Intelligence (AI) and Software Engineering (SE) .

The following IA subjects were studied :

Mono-objective algorithms: Genetic Algorithm (GA), Particle Swarm Optimization (PSO) , Ant Colony Optimization ( ACO ) and Simulated Annealing (SA) ;

Multi-objective algorithms: NSGA -II , SPEA2 , MOEA / D and IBEA ;

Hyper-heuristics: Choice Function, Multi Armed Bandit and FRRMAB ;

## Web Developer – 02/2014 to 07/2014

RevendaMais – Curitiba, Brazil

Second level support for a car sales system (PHP + CodeIgniter).  
Webservices Developer (SOAP/REST/XML) for several integrations as MercadoLivre, WebMotors, Icarros.

## Web Developer – 09/2011 to 02/2014

Magote – São Paulo, Brazil

I worked in coding and maintenance in PHP systems using the framework CodeIgniter, also in Java systems using JSF framework and Hibernate. I also worked in the configuration and maintenance of Linux servers (Ubuntu Server with Apache and Glassfish) and second level support.

## Junior Web Developer – 04/2011 to 09/2011

WebLibre – São Paulo, Brazil

I was involved in the development of the payment gateway Librepag (coded in PHP)

## Skills

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- **Portuguese:** Native
- **English:** Full professional proficiency

### Technical Skills

- **Proficient:** Java, PHP, SQL, XML, REST, Git, Unit test, UML, Continuous Integration, Evolutionary Computation and Machine Learning.
- **Intermediate:** C, C#, Python.
- **Familiar with:** Deep Learning, Natural Language Processing