# Alejandro REYES AMARO

Curriculum Vitae

3 rue Docteur Zamenhof 44200 Nantes (+33)666-372524 (+33)251-840861

⊠ alejandro.reyes@univ-nantes.fr



# Current position

2016 - up to now

**Temporary Adjunct Professor–Researcher**, Department of Informatics, Laboratory of Numeric Sciences of Nantes (LS2N).

University of Nantes

## Experience

2013 - 2016 PhD Student, LN2N (Inria).

Carrier of a three years research project, with the supervision of two master students. Creation of *POSL*, a parallel oriented high level language allowing to build meta-heuristic-based solvers, to solve combinatorial optimization problems.

https://github.com/alejandro-reyesamaro/POSL

28 583 lines of code in C++.

2010 - 2013 Researcher - Instructor, University of Havana - University of Balearic Islands.

Member of a research team carrier of divers MAEC-AECID projects (A/023109/09, A/030033/10 et A2/037538/11) to construct serious games able to capture movements of patients with physical disabilities, in order to evaluate the progression of physical rehabilitation.

https://github.com/alejandro-reyesamaro/iKinematic\_arm 38 768 lines of code in C# and 4 062 lines of code in MATLAB

2006 - 2011 Freelance.

Update of the data layer and the data access layer of the on-line booking system of *Umbrella Travel* web site. (https://www.umbrellatravel.com/).

(not open code)

2 343 lines of code in C# (LinQ, ASP.NET)

- Leader of a *freelances* team for the creation of:
  - Neurohipot: A system to evaluate attention and short-term memory skills in the elderly, to face the senile dementia diagnostic, for the university-hospital Gregorio Marañón, Spain.

https://github.com/alejandro-reyesamaro/Neurohipot

29 421 lines of code in C# (Microsoft Access Data Base)

- On-line store for buying Cuban products from abroad and distribute them in Cuba. http://git@github.com:alejandro-reyesamaro/vSotre\_cuba.git

47 330 lines of code in C# (SQL Server, ASP.NET)

2008 - 2010 **IT Developer**, Software & Consulting Group.

Member of a developers team to create:

 A web site for the evaluation of social responsibility levels of small enterprises in Costa Rica (wed design included).

(not open code)

89 193 lines of code in C# (SQL Server, ASP.NET)

• A plugin for the *back-end* of the internal services management system of the enterprise (*CSG*).

(not open code)

5 165 lines of code in C# (Microsoft Access Data Base)

#### Education

2013 - 2016 **PhD in Computer Sciences**, *UFR Sciences et techniques, University of Nantes, France* 

<u>Keywords</u>: Constraint satisfaction problems, meta-heuristics, parallelism, communication strategies.

2007 - 2011 Master's degree in Mathematical Sciences. Numerical Analysis, Faculty of Mathematics and Computer Sciences. University of Havana, Cuba.

Keywords: Inverse kinematics, path finding, collision detection, particles filtering.

2001 - 2006 **Bachelor of Computer Science**, Faculty of Mathematics and Computer Sciences. University of Havana, Cuba.

<u>Keywords</u>: Unfeasible primal–dual interior point method, linear programming, large scale problems.

## Computer skills

#### Programming languages

C#, C/C++, Java/Javascript, MATLAB, R.

#### Web and data basses

ASP.NET, HTML/CSS, SQL Server, Microsoft Access Database, LinQ, WCF.

#### Version control systems

Intermediate user of Git.

#### Other computer and et mathematics skills

- Operating systems:
  - o Linux
  - Windows
- Multi-core Technologies
- Combinatorial optimization
- Local search
- Function approximation
- Non-linear programming

- Visualization:
  - VirtualBox
  - VMwarre
- Massively parallel architectures
- Constraint programming
- computer vision
- Kinet cams
- Linear numerical algebra

#### Languages (Common European Framework of Reference (CEF))

 $\star\star\star\star\star$  **Spanish** Native

\*\*\*\* English Listening: C1, Reading: C1, Speaking: C1, Writing: C1

\*\*\*\* French Listening: C1, Reading: C1, Speaking: C1, Writing: C1

#### **Hobbies**

Music: 
 o https://youtu.be/KTkxVKzovOE

o https://youtu.be/yZxXxMNTo\_Y

• Latin dance: Salsa, bachata, etc.

Sports: o Volleyball

Table tennis

Diving

 $\circ \ \ \mathsf{Body}\text{-}\mathsf{building}$ 

Spare time: Horseback riding