Cesar Conopoima

Programmer and mechanical engineer

Contact

La California Sur,
Caracas-Venezuela.

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CesarConopoima

Language

English and French Fluency
German Basic
Spanish mother tongue

Programming

Ruby-Ruby On Rails
HTML-CCS
Python-C++
Matlab

Numerical Simulation

ANSYS-CFX
Matplolib-Numpy from Python

Personal Statement

I'm an engineer who knows how to solve problems, I feel very comfortable addressing engineering problems with a programming mindset. I really enjoy working in a stimulating environment that pushes me to new areas of knowledge. I consider myself a very pragmatic person with a strong result orientation.

Professional interests

Software development - Web application development - Programming

Numerical Simulations - Computational Fluids Dynamics

Personal interests

Alpinism - Soccer

Formal Education

2007-2013 Mechanical Engineer at *Universidad Simón Bolivar* Caracas-Venezuela
Formation Domain: Mechanics of rigid bodies, and fluid dinamics.
Numerical formulations to solve problems, specially computational fluid dynamics

International Student
2012-2013 One full year as international student, at the department of Mechanical Engineer Development.
Studies in contact mechanics and tribology.

Work Experience

July-2014 -Present ***Software Developer*** **at Funindes. (Research & Development Foundation at Universidad Simón Bolívar)**
- Compressors – In field Measurement – Programming.
Stand alone application to compute operational point and performance map of centrifugal and reciprocating compressors, installed in gas production facilities.
This project included, in field measurements and analysis of systems.
Selection and implementation of suited technology to develop the product in short time.
Back-end and front-end programming in visual basic.
Clients were 3 gas production facilities in the east side of Venezuela.

Computational Fluid Dynamics Engineer. **at Funindes. (Research & Development Foundation at Universidad Simón Bolívar)**
Jan-2014 July-2014 **– CFD – Numerical Models Research**
Performing numerical simulations of multiphase flow in ANSYS CFX.
Studying phase separation process in oil-water skimmer. The study included: in depth study of available numerical models that apply to the physical phenomena, selection of pertinent models to study coalescence, and separation of oil.
This project was developed to understand and improve operation of skimmer separator installed in an oil production field in Rubiales, Colombia.

Programmer at the quality control department **at Scan Geofísica**
– Programming – Ruby - SQL
Developing and refactoring code in ruby language and SQL, to improve productivity and performance of the quality control process.
May-2013 Aug-2013 Involved in a project to control over 150 TB of seismic data (SEG-D and SEG-Y formats).

Computational Fluid Dynamics Junior Researcher, Research & Development Department. **at General Electric Oil & Gas Thermodyn**
– CFD – Turbomachinery – Data analysis
Improving axial thrust prediction in centrifugal compressors. Performing numerical simulations with local software, to study and analyze secondary flows in cavities and labyrinth seals. Results and generated models were validated with experimental data.
Analyzing and exploiting experimental data to determine correlations and patterns, that finally allow engineers to calculate axial forces driven axial thrust in centrifugal compressors.
This project was developed in France. The communication with team members was in French and the final memory was written in English.
May-2012 Aug-2012 This project was presented in Venezuela as the final dissertation to obtain the Mechanical Engineer diploma, been qualified as an outstanding work.

Job as freelancer
– Programming – Ruby on Rails - SQL - HTML5 - CCS
Developing web application for e-commerce, in ruby on rails, with postgresql as db manager, programming of front end and back end, in constant communication with client, to satisfy all needs in real time. Application deployed in heroku could be found in *american-parts.herokuapp.com*