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SUMMARY I have a great interest in the development of automation projects, including performance analysis of equipment and systems, process control, signal processing, data exploration and programming. In addition, I like to take part of projects involving elaborated algorithms, great programming skills, machine learning techniques, advanced mathematical and statistical knowledge and electronic systems.

Specialties:

- Academic knowledge for modeling processes, process control and digital systems
- Machine learning techniques for regression and classification
- Advanced statistical knowledge
- Solid programming knowledge:
 - different programming paradigms, like structured, object-oriented and functional programming
 - many different programming languages: C, C++, Java, Python, Clojure, Lisp, Haskell, Matlab, Assemble
 - experienced with complex algorithms and data structures implementation

EXPERIENCE **Neoway Business Solutions**, Florianópolis, SC, Brazil

Research & Development, Programmer **December 2011 to Present**

- Machine learning techniques for:
 - image processing and classification
 - preprocessing: color reduction, noise/objects removal
 - segmentation of located words into letters
 - machine learning technique (support vector machines) for image recognition
 - Webcrawler development

Federal University of Santa Catarina, Florianópolis, SC, Brazil

R&D Project **DAS-UFSC/CENPES-Petrobras** **March 2010 to August 2012**

- Condition based maintenance
- Signal processing
- Fault detection
- On-line monitoring system of well sensors

Federal University of Espírito Santo, Vitória, ES, Brazil

Intern at Intelligent Control Laboratory **September 2008 to February 2010**

- Oscillation detection in control loops
- Fault detection of control valves
- LabView

Institutional Programs of Scientific Initiation **July 2007 to October 2008**

- Numeric simulation of petroleum reservoir using the LibMesh

Intern at **PET Engenharia de Computação** **March 2006 to August 2008**

- Involved actively on research, education and voluntary work activities
- Organization of scientific and student events
- Participation in local and national conferences

EDUCATION

Federal University of Santa Catarina, Florianópolis, SC, Brazil

M.S., Automation and System Engineering, 2010 – 2012

- Topics: signal processing, fault detection and isolation, empirical modeling based on historical data, sensor drift
- R&D scholarship
- 1 paper published at international workshop on automatic control of offshore oil and gas production

Federal University of Espírito Santo, Vitória, ES, Brazil

B.S., Computer Engineering, 2005 – 2009

- PET scholarship
- Program of Scientific Initiation (PIVIC)
- Participation in 2 research projects
- 1 paper published and presented at international congress on computational methods in engineering
- 1 paper published at international conference on industry applications

EXTRA COURSES **Coursera**

- Machine Learning (Stanford University), April 2012 – July 2012
- Web Intelligence and Big Data (Indian Institute of Technology Delhi), August 2012 – Present

PUBLICATIONS

- [1] Boechat, Andre A.; Moreno, Ubirajara F.; Haramura, Decio, Jr., “On-Line Calibration Monitoring System Based on Data-Driven Model for Oil Well Sensors,” in Proceedings of the IFAC Workshop on Automatic Control in Offshore Oil and Gas Production, Trondheim, Norway, 2012, pp. 269–274.
- [2] BOECHAT, A. A., MORENO, U. F. and TEIXEIRA, A. F. . PROPOSTA DE UMA ARQUITETURA DE MONITORAMENTO BASEADO NA CONDIÇÃO PARA APLICAÇÃO EM UNIDADES MARÍTIMAS DE PRODUÇÃO. VI Congresso Rio Automação, 2011, Rio de Janeiro. VI Congresso Rio Automação, 2011.
- [3] MUNARO, C. J. and BOECHAT, A. A. . Ambiente computacional baseado em Labview para detecção de oscilações em malhas de controle. IX Induscon - 2010 9th IEEE/IAS International Conference on Industry Applications, 2010, São Paulo.
- [4] BOECHAT, A. A. and VALLI, A. M. P. . Funcionalidades da biblioteca LibMesh na resolução de escoamento de fluidos pelo método dos elementos finitos. Congresso Ibero-Latino-Americano de Métodos Computacionais em Engenharia, 2009, Armação de Búzios. CILAMCE 2009 - Congresso Ibero-Latino-Americano de Métodos Computacionais em Engenharia, 2009.

SKILLS

Computer Programming Languages:

- C, C++, Clojure, Java, Lisp, Matlab, Octave, Haskell

Machine Learning and Statistics:

- regression, classification, statistical detection, data exploration

Instrumentation, Control, Data Acquisition, Test, and Measurement:

- Simulink, LabVIEW

Circuit Description:

- VHDL

Version Control:

- Git, SVN

Productivity Applications:

- T_EX (L^AT_EX, B_BT_EX), Vim

Operating Systems:

- Linux

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| AWARDS | <p>Postgraduate program in Automation and Systems Engineering</p> <ul style="list-style-type: none">• R&D Scholarship <p>Federal University of Espírito Santo</p> <ul style="list-style-type: none">• Scholarship |
| LANGUAGES | <p>Portuguese</p> <ul style="list-style-type: none">• Native <p>English</p> <ul style="list-style-type: none">• Reading: very good• Writing: good• Speaking: poor |
| ADDITIONAL INFORMATION | <p>GitHub: github.com/boechat107</p> |