Wilmer Garzón-Alfonso

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Profile

Computer Engineering and Mathematician with a Master in Science in Computer Engineering. I have over 8 years' experience in the business sector, implementing and managing projects related with process automation and technology.

I have extensive experience in academic teaching university groups, research and application development in the area of Bioinformatics. I have comprehensive training, leadership, interdisciplinary performance, creativity and entrepreneurship, social and ethical, responsible, punctual, disciplined, orderly, methodical, gentle, simple and honest way.

During these years I have been involved with academic and business projects. I am teaching different courses related with of Systems Engineering, Mathematics and Biomedical Engineering departments at the Colombian School of Engineering. I have always been finds evolution, innovation and renovation, involving new technologies for the development of my courses.

I am interested in further research and meeting new topics related to technology and software development solving real-world problems.

Education

- **Master in Science of Computer Engineering** *Jan 2011–Dec 2012*
  University of Puerto Rico, Mayagüez Campus
  - Thesis in the bioinformatics field under supervision of Prof. Jaime Seguel: A multi-algorithmic approach to the analysis of biological sequences.
  - Thesis committee members: Prof. Jaime Ramirez V, Prof. Fernando Vega and Prof. Rogelio Palomera.
  - GPA: 4.0/4.0

- **BS in Mathematics** *Sep 2008*
  Escuela Colombiana de Ingeniería "Julio Garavito" - (Colombian School of Engineering)
  - Thesis under supervision of Prof. Edgard O'bonaga on University teaching practices.
  - Title: Mathematician
  - Bogotá, Colombia

- **BS in Software Engineering** *Mar 2006*
  Escuela Colombiana de Ingeniería "Julio Garavito" - (Colombian School of Engineering)
  - Thesis under supervision of Prof. Raul Chaparro on Visual environment Turing machine in JAVA.
  - Title: Systems Engineer
  - Bogotá, Colombia

Professional experience

- **Ecapture** *Jan 2013–November 2014*
  IT Manager
  - Management of projects aimed at developing solutions for automating document processes and capture through mobile devices. Leadership in developing projects using software.
  - Advising on issues related to automating document processes using technology.
  - Direct relation with customers, solving problems related to document processing.

- **SCAD – ReadSoft partner, Bogotá - COLOMBIA** *Jan 2007–Dec 2010*
  Functional Consultant
  - Direct contact with customers to meet business problems related to document processing.
  - Customizing the company's products based on customer needs, ensuring success in the implementations.
  - Deployment and execution of projects in Mexico, Colombia, Venezuela and other countries remotely.

  Specialist Product
  - Development applications using different programming languages, integrating with the product ReadSoft Documents for Forms, which automates the document processes, generating efficiency in the business.

- **Axesnet S.A. (Electronic Commerce and Business by Internet), Bogotá - Colombia** *Summer 2006*
  Web Developer
  Requirements survey, develop web sites in ASP.NET and support service.

Academic Experience

- **Colombian School of Engineering, Bogotá - COLOMBIA** *2007-2010 and 2013–Present*
  University Professor (part-time)
  - Teaching courses: linear algebra, computer programming, problem solving by computer, precalculus and design of biomedical applications for different undergraduate academic programs.

- **University of Puerto Rico, Mayagüez Campus** *Jan 2011–Dec 2012*
  Researcher graduated
  For the Department of Electrical and Computer Engineering on topics related to bioinformatics:
  - Developing an integrated computing system for Biosequence analysis based on Python.
  - Designing computational methods to predict potential genes in DNA sequences, using Matlab programming.

- **Colombian School of Engineering, Bogotá - COLOMBIA** *Jan 2005–Dec 2006*
  Teaching Assistant
  - Provide support to the academic direction of basic sciences, working with latex and web development.
  - Resolve students' doubts of the courses: computer networks and mathematical models for computer.

Awards Received

- **Colombian School of Engineering, Bogotá – COLOMBIA** *Sep 2008*
  Special Mention Academic
  - For high personal qualities, academic excellence and effective identification with the goals of the institution to obtain the second professional title as a Mathematician.

Professional Memberships

- IEEE Active Membership
- IEEE/ACM Transactions on Computational Biology and Bioinformatics
- Researcher of research group in data analysis using computational tools.

Research projects developed

I have developed important projects during my Masters studies, some of them below:

- **2011** Pre-processing, data visualization, detection of outliers, data classification and clustering, all these methods applied to data sets Statlog (Image Segmentation) using the statistical package R. (http://archive.ics.uci.edu/ml/index.html)

- **2012** Apply methods of data discretization and selection of the best variables in the dataset using the R statistical package and applied to all data and set Sonar Molecular Biology (Splice-junction Gene Sequences). (http://archive.ics.uci.edu/ml/index.html)

- **2012** Use the Matlab tool for fuzzy-clustering on biological data sets. Similarly, do the search for genetic regions of DNA sequences related to the yeast *Debaryomyces Hansenii*.

Business projects developed

During my years of working in the technology field, I have developed and implemented various projects are software oriented to process automation. Here are some of them:

2014 Document Process Automation for different multinational *CARVAJAL* using recognition technologies.

2014 Decentralized scanning process for guide delivery to the logistics company *ENVIEXPRESS*. In addition, automation of centralized capture process related these guides, achieving integration with the trading system of the client.

2013 Automating the process of bank recollection offered by *SETECSA* (G4S) at different banks. Integration with management, reducing processing time and improving the quality of information.

2013 Implementation of the solution for the simulation related to the processing of Form E14, documents related to the process of national elections by Registraduría Nacional de Colombia. This project was together with the companies *GREG THOMAS & SON'S* and *CARVAJAL*.

2013 Automating the process of capturing documents related merchandise deliveries *TCC* Company in the city of Medellin. Making integration with customer trading system in AS400.

2010 Collection of the requirements for the automation process accounts payable *ECOPETROL*. Apply recognition technologies to capture the information. Ensure integration with SAP ERP system *ECOPETROL*.

2010 Develop the decentralized scanning for purchase orders for the company *Novaventa*. The scanning is performed in different cities of Colombia and then processed in Bogota with OCR technologies.

2010 Automate the pre-count of votes in elections for senate, congress and presidency in some departments of Colombia. In association with *National Registry of Civil Status of Colombia* and other companies, ensuring the success, security and effectiveness in the process.

2009–2010 Remote scanning of corporate documents for the company *Leonisa*. Then processing the information using recognition technologies. This implementation is used in different countries.

2008-2010 Automate the process of labels delivery for some shipping companies in Colombia. This project is in association with *Computec S.A*.

2008 Installation, training and support in the automation process of capture information from the corporate documents of the multinational company *L'BEL*, in Venezuela (2007) and Mexico (2008).

2007-2010 Setup, support and upgrade for the automated document process, ensuring corporate documents processing for *Colombian Federation of Coffee Growers (FNC)* in some departments.

Skills

➢ **Courses Taken**
- Artificial Intelligence, Project Management, Data Mining, Usability Engineering, Management Information System, Bioinformatics, Software as a Service and Computer Architecture.

➢ **Programming**
- *Proficient*: C#.Net, VB.Net, ASP.Net, Vb 6.0, HTML, XML, SQL, Python.
- *Knowledgeable*: Java, C, Oracle, Linq to Sql, Ajax, Matlab, R, Ruby, Wolfram Mathematica.

➢ **Software**
  - SQL Server, Visual Studio, Dynamics GP, Oracle, Eclipse, ReadSoft Documents for FORMS, Office.
  - Windows Servers; Windows; Linux.
➢ **Languages**
  - English (proficient), Spanish (fully).

Extracurricular Activities

➢ **Colombian School of Engineering, Bogotá - COLOMBIA**   *Jan 2005–Dec 2006*
  Founder
  - Microsoft Academic cell (Student Tech Clubs Microsoft) in the university; teaching and explaining the different Microsoft technologies, aimed at students and professors of the university community.
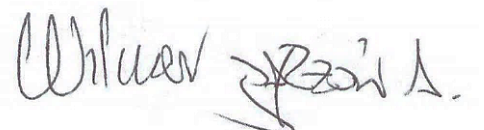
Interests

Sports (Football, Ping-Pong, Basketball)

References

Jaime Seguel, Ph. D.
Associated Dean for Academic Affairs College of Engineering
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Jaime E. Ramírez-Vick, Ph. D.
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Luis E Rodríguez-Cheu, Ph. D.
Director biomedical program
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