Juan David Aristizábal Cardona

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Profile

Process engineer driven to uncover opportunities for value creation and processes improvement, supported by frameworks like outcome driven innovation, theory of constraints and project management.

Web developer willing to create solutions that address unmet needs in areas like education, project and innovation management, health and social coordination using Ruby on Rails, JavaScript, HTML and CSS. Prepared to learn any tech that enables new approaches to address underserved needs.

Education

Make It Real [1], *online*	*2015-2016*
Full Stack Web Development Bootcamp	

Universidad de Antioquia , *Medellín - Colombia*	*2012 - 2013*
Project Management Postgraduate Diploma	

Universidad EAFIT [2], *Medellín - Colombia*	*2007 - 2012*
Process Engineering Bachelor's Degree, **specialization in chemical process design**	

Languages

English – Academic IELTS, overall score: 7	*27 April 2013*

Portuguese – Instituto de Língua Portuguesa	*Jan 2014 - Dec 2014*

Work Experience

Process Engineer – cofounder	*2013-2017*
Sirexa	
Medellín - Colombia	
www.sirexa.com	

Coordinate industrial B2B sourcing projects and lead the creation of partnerships with stakeholders.

Prepare reports based on trade data to draw insights and devise market strategies.

Participate in industrial trade shows like Abrafati in São Paulo-Brazil to activate and sustain new ties with suppliers and clients.

Junior full stack RoR developer, remote and part time	*2016*
Nominapp	
https://www.nominapp.com/	

Contributed to the evolution of the web platform - devoted to payroll management for SMEs - using Ruby on Rails, Git, Javascript, Jquery, Bootstrap, CSS and HTML.

44 pull requests dealing with front end and back end issues like:
- Reordering layouts and creating landing pages
- Tracking registries through Google Apps Script and adding migrations to db to record new incoming information
- Crafting JS and jQuery scripts e.g. calculate legal digits as user is entering his information inline

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[1] RoR / Junior full-stack developer / Make it Real
[2] Process Engineering / Bachelor´s Degree / Universidad EAFIT

- Analyzing the source of differing payroll values in some parts of the app
- Making views responsive
- Creating MVC implementations e.g. show companies historic for paid novelties
- Adding on existing functionality to implement single employee mailing
- Fixing UI/UE issues

Used git/github, trello, toggl for team collaboration.

Project Analyst - Intern   *2011 - 2012*
Compañía Nacional de Chocolates - Grupo Nutresa
Rionegro - Colombia
www.chocolates.com.co

Evaluated projects financially and technically - to enable overall costs savings for up to USD 1,15 MM and increase productivity in several productive lines. Generated financial statements as well as project indicators such as net present value, return on investment and payback period and provided analysis based on these measurements.

Reported the advance of eight ongoing projects to both the Engineering Director and the Manufacture Process Leader.

Planned and executed a project to replace a bucket elevator in one of the most important productive lines in the Company. It was a USD 15,000 project undertaken within the budget, which accurately met the quality and occupational requirements.

Introduced entering interns in project formulation and evaluation.

Side Projects

2013
Developed a feasibility study oriented to improve the performance of the productive process for a manufacturer of liquid biodegradable detergents. In the feasibility study, we conducted studies related to technical issues, financial evaluation, risk management, market research, environmental impact and legal aspects.

Currently
Co-founder at Sirexa, where currently I am trying to leverage our business model and look for new partnerships.

Broadening my knowledge about agile product development.

Evaluating if it would be worthwhile to work on a couple of startup projects e.g. a project management platform for distributed teams. Saw this problem when working at a manufacturing organization and talking with local government authorities, both lacking a tool to track how well projects were advancing.

Bachelor's Degree Research

Characterization of secondary metabolites produced by Pouteria caimito in its leaves.   *2011 - 2012*

Presented the conclusions of the project at the annual Process Engineering fair, as well as defended the thesis in an open lecture, where my co-worker and I reported for the first time the presence of a mixture of isomeric triterpenoids, a fatty acid ester of triterpenoid along with some waxes, isolated from *Pouteria caimito* leaves collected from the Chocó forest in Colombia, a region well known for being one of the highest centers of biodiversity on earth.

Preliminary identification of tannins compounds from the leaves of Acacia mangium.   *2012*
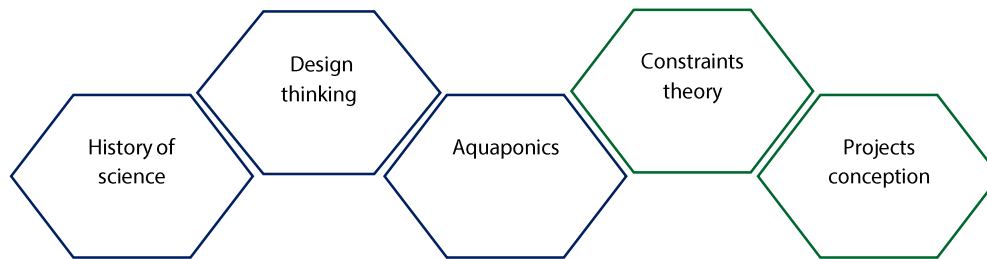
Conducted primordially scientific database research to determine the state of the art of identification techniques for tannins compounds and their occurrence in the *Acacia* genus, as well as devised a roadmap to perform some preliminary experiments and presented the procedures to the interested sponsor.

Evaluation of the operational conditions to reduce the COD in gray water by the Photo-Fenton process.   *2011*

Evaluated the effect of Fe^{+3} and H_2O_2 concentration on the degradation rate of organic matter using a 3^2 factorial experiment design and analyzed statically the outcomes with Statgraphics Centurion. Furthermore, the best treatment was selected and a kinetic behavior was reported for 3 hours of reaction achieving a 69% of organic matter degradation.

Interests

History of science

Design thinking

Aquaponics

Constraints theory

Projects conception

Some tools

STATGRAPHICS

Analyzed statically the results from sets of experiments to determine significance of variables and identify optimal conditions of processes.

MS PROJECT

Planned projects while working at Compañía Nacional de Chocolates and scheduled activities for feasibility studies.

MS VISIO

Designed PFD and P&ID of chemical processes based on the ISO 10628 and ISA-S5-1 standards.

MATLAB

Programmed codes to solve mathematical algorithms in the fields of thermodynamics.

POLYMATH

Solved differential equations in the area of reactors design and graphically interpreted the advances of reactions.

HYSYS

Simulated chemical processes under several scenarios and interpreted the relations among different variables.

MS EXCEL

Used it to evaluate projects with financial models.

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July 2017