

Juan Jacobo Angulo

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EDUCATION

PhD Computational Fluid Dynamics. 2013 (Expected)
University of Liverpool. Liverpool, UK. (Scholarship from the EPSRC and BAE Systems plc.)

- Research focusing on developing new numerical solvers for aerospace flows using meshless methods.

Keywords: Numerical Algorithms, Navier-Stokes equations, Turbulence Models, Meshless/Gridless schemes.

MSc Motorsports Engineering. GPA: 8,02/10 March 2009
Mondragon University / Epsilon Euskadi Race Team. Mondragon, Spain.

Modules: Aerodynamics & Thermodynamics, Computational Methods in Engineering, Systems Simulation.

- Dissertation: "*Development of a Multi-Body Dynamics Software Tool for Vehicle Dynamics Simulation*"
Successfully developed and coded mathematical algorithms to model the transient ride & handling of cars using multi-body dynamics formulations. (Differential-Algebraic Equations, MATLAB and C++).

MEng Mechanical Engineering (5-year program with research thesis). GPA: 3,92/5 March 2006
Universidad Simón Bolívar. Caracas, Venezuela.

Topics: Vector Calculus, Linear Algebra, Diff. Equations, Numerical Methods, Statistics, Fluid Mechanics.

- Dissertation: "*Design & Optimization of the Intake Manifold of a Honda f4i Engine using Transient CFD*"
- Highest Honours Award for the thesis project.
- Published technical paper about the thesis.

WORK EXPERIENCE

VIP Group Ltd (Compak Ramps). Charlton, London, UK. February 2009 – April 2010
Design Manager.

- Managed the R&D office, developing new mechanical components for public transport vehicles.
- Within a year I developed and produced for the company two new products with an expected market of 500,000£ over the next three years.
- Worked in all aspects of development from specification, analysis, detailed design, supplier liaison, prototype testing to production sign-off.
- Introduced FEA and Numerical Analysis to the company, improving the in-house engineering capabilities.

OptimumG LLC. Denver, USA. August 2007 – November 2008
(Consulting company. Extensive client list includes F1, Indy and NASCAR racing teams)

R&D Engineer / Junior Consultant (Contract position).

- Managed a group of 3 engineers to develop a fully-functional software tool for multi-body dynamics simulation in under 16 weeks.
- Customer-facing role, providing consultancy services for various clients in the area of vehicle dynamics simulation.
- Developed numerical algorithms and analysis techniques for vehicle simulation.

Epsilon Euskadi Race Team. Vitoria, Spain.

January – August 2007

Data Analysis & Simulation Engineer (Part-Time).

- Analyzed test data from the race cars and provided input to race engineers to select the appropriate strategies.
- Developed numerical models and performed advanced simulations to improve the performance of the cars.

Peugeot Venezuela (PS Auto S.A.)

June – December 2006

Project Coordinator - Peugeot 207 Spider Assembly Line (7-month contract)

- Managed a group of 2 devising the necessary tasks to manufacture the Peugeot 207 Spider Race Car in a local assembly line and the start of a new race series.
- Evaluated engineering designs and materials and worked alongside local part manufacturers to start local production.
- Liaised with local governmental authorities, automotive federation leaders and race circuit directors to promote and develop the new race category and its regulations.

EXTRACURRICULAR ACTIVITIES**Formula Student USB (Student Organization). Caracas, Venezuela**

2003 – 2006

Team Leader

- Managed a group of 35 students and a budget of over \$150,000 to successfully design, develop and race 3 Formula Student race cars.
- Best result: 11th (out of 140 teams from around the globe) in the prestigious design event.

SKILLS**COMPUTER:**

Programming: C/C++, VB.NET, VBA, Matlab.

Engineering: FLUENT/Tgrid, Ricardo WAVE/VECTIS, Star-CCM+, ABAQUS, PATRAN/NASTRAN, ADAMS/AdamsCar.

CAD-Design: CATIA V5 (*Certified Expert*), SolidWorks, Pro/E, AutoCAD 2D, Rhino 3D.

LANGUAGES: Spanish and English (Both fluent)

PUBLICATIONS**Juan Jacobo Angulo**, Dr. Nathaly Moreno. "*Numerical Simulation of the Air Flow in the Intake Manifold of a Honda F4i Engine*".

Paper presented on the 2006 Latin American ASME Annual Engineering Congress, - Universidad Simon Bolivar, Caracas, Venezuela, June 8-6, 2006.

TRAINING COURSES & CERTIFICATIONS

- Business Management Short Course. *IE Business School*. Madrid. Spain 2008
- Race Car Dynamics & Data Acquisition Seminar. OptimumG / MOTEC (Attended and worked as assistant)
- Dassault Systemes: CATIA V5 Certified Professional (Expert Level).