Constantino Schillebeeckx
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Data Scientist

PROFESSIONAL EXPERIENCES

2014-now Data Scientist - **Matatu**; www.matatu.com
- genomic computational pipeline development (Python, bash)
- design, implementation and interface with MySQL database housing sample, animal and trial data
- predictive data modeling with machine learning algorithms and statistical techniques (Python, R)
- implementation of web data visualization tools for highly dimensional data (D3, HTML, PHP, javascript)
- management of Linux server (Ubuntu)

2011-14 Owner - **Motus: 5-axis robotic motion control camera system**; www.motusmotion.com
- implemented a C/C++ object-oriented software package for control logic
- developed a touch-screen user interface (UI) for robot control unit
- designed & layed-out printed circuit board (PCB) to interface with microcontroller
- realized 3D computer aided design (CAD) of mechanical specifications
- developed Python software to interface motion data with 3D animation package

2011-12 Consultant - **The BALSA Group**; Saint Louis, MO
- advised biotechnology company to leverage their computational, database management and graphical visualizations expertise to evaluate the results of High Throughput Screens (HTS)
- evaluated possible business models and marketing strategies to target researchers
- surveyed and evaluated various market segments to reccommend marketing/sales strategies

2011-12 Bioinformatician - **Washington University School of Medicine**; Saint Louis, MO
- GlaxoSmithKline grant: computational drug discovery
- wrote Python based statistical model for analysis of HTS data
- managed / designed large data set pipelines on Linux high-performance computer cluster
- visualized highly connected network of phenotypic and target-based assays
- developed a HTML front-end for public access of data
- interfaced with several MySQL databases

2009-11 R&D Engineer - **Robert Bosch GmbH**; Stuttgart, Germany & Mexico City, Mexico
- selected for high-potential management program
- invented energy management systems in hybrid and traditional vehicles
- simulated and verified fuel consumption with in-house models
- developed energy management systems into marketable products
- inventor of 4 issued patents
- created marketing material for an entire line of products for use in Mexican market
- designed / managed test procedures for energy management verification in hybrid vehicles

2006-09 Computational Researcher - **Georgia Institute of Technology**; Metz, France
- led and designed research project in material science resulting in a publication
- developed a FORTRAN based elastic-viscoplastic scale transition model for the simulation of strain-rate sensitive nanocrystalline steels

EDUCATION

2004-06 **Dual Masters of Science in Mechanical and Industrial Engineering**
- Georgia Institute of Technology - [GPA 3.95]
- Ecole Nationale Superieure des Arts et Metiers (ENSAM)

2001-04 **Honors Bachelor of Science in Mechanical Engineering**
- Missouri University of Science and Technology - [GPA 3.99]
- GE research project: reduction of temperature in a three-phase transformer
- Assistant teacher: fluid dynamics & engineering statistics

PROFESSIONAL SKILLS

Work	adaptable in multi-cultural and multi-disciplinary work groups, effective communicator, meticulous and high-integrity project manager, takes initiative, polyglot, rigorous, autonomous, open-minded, creative, curious
Computer	Python, C/C++, HTML, PHP, MySQL, Linux/Unix, Cytoscape, FORTRAN, Adobe Photoshop, Adobe Lightroom, Adobe Illustrator, AutoCad Solid Works, CadSoft Eagle, Wordpress, Maya
Language	Mother tongue: English, French Fluent: Spanish, German Advanced level: Dutch

PEER-REVIEWED PUBLICATIONS

- S. J. Swamidass, C. N. Schillebeeckx, M. K. Matlock, M. R. Hurle, and P. Agarwal. Combined analysis of phenotypic and target-based screening in assay networks. Journal of Biomolecular Screening, June 2014; vol. 19, 5: pp. 782-790

- Schillebeeckx et al., A new micromechanics-based scale transition model for the strain-rate sensitive behavior of nanocrystalline materials, Philosophical Magazine, February 2011; vol. 91, 5: pp. 657-681