

640 Bartholomew Road • Piscataway, NJ 08854-8003 • Phone: (732) 878-9662 • Mobile: (732) 343-3685  
tbonates@rutcor.rutgers.edu • <http://rutcor.rutgers.edu/~tbonates>

**QUALIFICATIONS**

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Six years of experience in the development of computer systems involving the application of mathematical programming, data mining, and machine learning techniques. Experience with combinatorial and network optimization algorithms and bioinformatics applications.

**Programming languages:** *C/C++, Visual Basic, Delphi, Python, Prolog, SQL.*  
**Software packages:** *ILOG CPLEX, Dash Xpress-MP, COIN-OR, Matlab, Octave, SPSS, SAS, MS Visual Studio, Mac OS Xcode.*  
**Operating systems:** *MS Windows, Linux/Unix, Mac OS X.*

**EDUCATION**

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2002-2007 **PhD in Operations Research, Rutgers University**  
Dissertation: *Optimization in Logical Analysis of Data*  
Dissertation advisors: Peter L. Hammer and Alexander Kogan

1999-2001 **MS in Systems Engineering, Federal University of Rio de Janeiro, Brazil**  
Thesis: *Performance Evaluation of Criss-Cross Algorithms for Linear Programming*  
Thesis advisor: Nelson Maculan

1995-1998 **BS in Computer Science, State University of Ceará, Brazil**  
Developed a Matlab toolbox for integer linear programming, including code for a branch-and-bound solver, a Lagrangian relaxation algorithm, and Benders and Dantzig-Wolfe decompositions.

**EMPLOYMENT HISTORY**

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2002-2007 **Research/Teaching Assistant**  
*Rutgers University Center for Operations Research, Piscataway, NJ*  
Application programming and theoretical research in the fields of mathematical programming and machine learning. Development of a complete machine learning system based on optimization techniques integrated with the *Xpress-MP* solver callable library. Participation in several multidisciplinary projects in the area of bioinformatics, involving classification and regression tasks on microarray and clinical data from the National Institutes of Health and the Cleveland Clinic Foundation. Organization of the Department's seminars.

2003 **Summer Intern**  
*Dash Optimization Inc., Englewood Cliffs, NJ*  
Development of a benchmarking tool for calibrating the control parameters of the *Xpress-MP* solver. Extensive testing for validation of the *Xpress-MP* stochastic programming solver. Implementation and evaluation of criss-cross pivoting algorithms for linear programming using the *Xpress-MP* solver. Modeling and implementation of a vehicle routing application for a prospective client, this program being still in use to date.

## EMPLOYMENT HISTORY (CONTINUED)

2001-2002 **Systems Analyst**

*Eletróbrás Research Center, Rio de Janeiro, Brazil*

Development of a *Visual Basic* graphical interface for an electrical market planning application. Implementation of software for automatic population of a large database based on data from a series of heterogeneous systems. Development of drivers for communication between different modules of a library of optimization applications for electrical market planning.

1999-2001 **Teaching Assistant**

*Federal University of Rio de Janeiro, Rio de Janeiro, Brazil*

Teaching of an undergraduate course on Linear Optimization.

## AWARDS

2003–2006 **DIMACS Summer/Winter Graduate Student Research Award**

*Center for Discrete Mathematics and Theoretical Computer Science, Piscataway, NJ*

June 2005 **DIMACS/LAMSADE Exchange Program**

*Université Paris IX Dauphine, Paris, France*

## ACADEMIC ACTIVITIES

- Session chair for the Second Mathematical Programming Society *International Conference on Continuous Optimization* (ICCOPT-II) and *Modeling and Optimization: Theory and Applications Conference* (MOPTA-07) at McMaster University, Hamilton, Canada, August 2007.
- Research articles published (or accepted for publication) in prestigious scientific journals: *Annals of Operations Research*, *Discrete Applied Mathematics*, *International Transactions on Operational Research*, and *Breast Cancer Research*.
- Talks at conferences and seminars (INFORMS Annual Meeting 2004, 2005, and 2006, International Symposium on Mathematical Programming 2006).
- Referee for the *Annals of Operations Research*.
- Member of INFORMS, The Institute for Operations Research and the Management Sciences.

## LANGUAGE SKILLS

- **English:** fluent
- **Portuguese:** native
- **Spanish:** proficient
- **French:** can read

## REFERENCES

Available upon request.