

Jose A. Orozco Rodriguez

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INTERESTS

Data Analysis, Optimization, Operations Research, Industrial Mathematics, Mathematical Modeling.

EDUCATION

University of Minnesota - Twin Cities, Minneapolis, MN, 2004-present.
Ph.D. student in Applied Mathematics.

Benemérita Universidad Autónoma de Puebla (BUAP), Puebla, Mexico, 2002-2003.
M.S. in Mathematics.

Universidad de las Américas - Puebla (UDLA-P), Puebla, Mexico, 1996-2001.
B.S. in Mathematics.

RESEARCH EXPERIENCE

Internship, Carhop (Twin Cities. Summer 2007).

Research Adviser: Prof. Fadil Santosa.

Development of a classification method using AdaBoost and neural networks.

Development of a score assignment method using optimization techniques.

M.S. Research, Benemérita Universidad Autónoma de Puebla (Puebla, Mexico. 2002-2003).

Research Adviser: Prof. Andrés Fraguera Collar.

Thesis: A Method for Calculating the Average Instantaneous Value of the Axial Component of the Velocity Field of a Two Phase Dielectric Fluid Using Two Capacitance Tomographies.

Internship, Bosch (Stuttgart, Germany. Fall 2000).

Research Adviser: Dr. Uwe Iben.

Monitoring of computer simulations of fuel flowing through nozzles of car engines.

Development of a graphic tool using splines.

B.S. Research, Universidad de las Américas - Puebla (2001).

Research Adviser: Prof. Francisco Guerra Vázquez.

Thesis: On Constraint Qualifications in Semi-infinite Optimization.

PUBLICATIONS AND CONFERENCE PROCEEDINGS

- Francisco Guerra, **Jose A. Orozco Rodriguez** and Jan-J. Rückmann, "On Constraint Qualifications in Semi-infinite Optimization," Seventh International Conference on Parametric Optimization and Related Topics (2002).

RELEVANT Ph.D. COURSEWORK

Introduction to Operations Research	Applied Regression Analysis
Unconstrained and Constrained Numerical Optimization	Partial Differential Equations
Linear Programming and Combinatorial Optimization	Ordinary Differential Equations
Numerical Analysis and Scientific Computing	Dynamical Systems
Mathematical Modeling and Methods of Applied Math.	Complex Analysis
Numerical Analysis of Differential Equations	General Algebra

PROGRAMMING EXPERTISE

Experience with Unix, Mac and PC.
Programming languages: Matlab, Mathematica.
Markup/Typesetting: HTML, LaTeX

TEACHING EXPERIENCE

University of Minnesota:

- Teaching Assistant (discussion and laboratory) for Physics for Biology and Premedicine II (2007-present).
- Teaching Assistant for Precalculus and Calculus (2004-2006).
- Tutorial services for students in college Mathematics courses (2005).
- Grader for Fourier Analysis and Finite Mathematics (2004).

Universidad de las Américas - Puebla:

Tutorial services in college Mathematics courses (1999-2001).

Instituto D'Amicis (Puebla, Mexico):

Highschool Physics Professor (Fall 1997).

Private tutor of Physics and Mathematics to highschool and college students (1996-2003).

AWARDS AND HONORS

- *Magna cum laude*, UDLA-P, 2001.
- *Member of the Dean's list*, UDLA-P, 1999.
- *Excelencia Jenkins scholarship*, UDLA-P, 1996-2001.
- *1st place*, "Reading Science from Mexico" contest, 1993.