
Jose A. Orozco Rodriguez

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OBJECTIVE

To be part of an analysis team that will utilize my educational experience and skills in Applied Mathematics.

EDUCATION

University of Minnesota - Twin Cities, Minneapolis, MN.

Ph.D. candidate in Applied Mathematics (expected, Summer 2010). GPA: 3.7

M.S. in Mathematics (2008). GPA: 3.7

Relevant courses: Operations research, applied multivariate statistical analysis, numerical analysis, digital image processing, optimization.

Benemérita Universidad Autónoma de Puebla (BUAP), Puebla, Mexico.

M.S. in Mathematics (2003). GPA: 10.0/10.0

Universidad de las Américas - Puebla (UDLA-P), Puebla, Mexico.

B.S. in Mathematics (2001). GPA: 9.7/10.0

RESEARCH AND WORK EXPERIENCE

Ph.D. Research, University of Minnesota - (Twin Cities. Expected, Summer 2010)

Research Adviser: Prof. Fadil Santosa.

Thesis: Analysis and regularization of an inverse problem arising in the estimation of asset price distributions from option prices, and analysis of a multiplicative variational representation to treat discrete ill-posed problems.

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 (Puebla, Mexico. 2001).

Research Adviser: Prof. Francisco Guerra Vázquez.

Thesis: On Constraint Qualifications in Semi-infinite Optimization.

SKILLS

- Programming skills: Work with **Matlab** on a regular basis. Have worked with **Excel** (for linear programming), **Mathematica**, and **R**.
- Other computer skills: Latex, Word, PowerPoint, xhtml.
- Communication skills: Fluent spoken English. Fluent spoken Spanish. Excellent written skills. Good presentation skills and extensive experience conveying ideas to audiences at any level (e.g., undergraduate students, peer graduate students, professors, professionals with no specialized mathematical background).

TEACHING EXPERIENCE

- *University of Minnesota*, Teaching assistant (2004-present).
 - **Relevant courses:** Mathematical background for finance, Mathematical theory applied to finance, Physics for biology and pre-medicine II.
- *Universidad de las Américas - Puebla*, Math tutor (1999-2001).

PUBLICATIONS AND CONFERENCE PROCEEDINGS

- **Jose A. Orozco Rodriguez** and Fadil Santosa, “Analysis and regularization of an inverse problem arising in the estimation of asset price distributions from option prices,” *Inverse Problems* (submitted March 2010).
- 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).

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).