Curriculum Vitae
Jorge Nocedal

Education:

Ph.D. in Mathematical Sciences, Rice University, 1978.
B. Sc. in Physics, National University of Mexico, 1974.

Professional Experience:

IEMS Department, Northwestern University:
    Director, Optimization Center, 2011 - present
    Professor, 1992 – present
    Associate Professor, 1986 – 1992
    Assistant Professor, 1983 – 1985.
Courant Institute of Mathematical Sciences, NYU,
    Research Associate, 1981 – 1983.
National University of Mexico, Assistant Professor, 1978 – 1981.

Synergistic Activities:

SIAM Journal on Optimization, Editor-in-Chief, 2010 – present.

Mathematical Programming A, Associate Editor, 1989 – present.

Director, Optimization Center, Northwestern University, 2010 – present.

SIAM Review, Associate Editor, 2006-2009.

Author of the book *Numerical Optimization,* with Stephen Wright, 2nd edition, 2006

Co-developer of *Engineering First*, a new curriculum for engineering education at Northwestern.

Honors and Distinctions:

2012	George B. Dantzig Prize
2010	Broyden Prize
2010	SIAM Fellow
2004	ISI Highly Cited Researcher (Mathematics category)
1998-2001	Harris Professor of Teaching Excellence, Northwestern University
1998	Invited Speaker, International Congress of Mathematicians

Five Relevant Publications:

1. On the Use of Stochastic Hessian Information in Optimization Methods for Machine Learning, with R. Byrd, G. Chin, and W. Neveitt, *SIAM J. Optimization*, 21, pp 977, (2011)

2. Infeasibility Detection and SQP Methods for Nonlinear Optimization, with R. Byrd and F. Curtis, *SIAM J. Optimization*, Vol 20, no. 5, (2010)

3. On the Geometry Phase in Model-Based Algorithms for Derivative-Free Optimization, *Optimization Methods and Software*, Volume 24, Issue 1, February 2009, pp. 145-154, with G. Fasano and J.L. Morales, (2009). Awarded the *Charles Broyden Prize*.

4. An Inexact Newton Method for Nonconvex Equality Constrained Optimization, *Mathematical Programming Series A*, 122(2): 273-299, with R. Byrd and F. Curtis (2010).

5. On the Use of Piecewise Linear Models in Nonlinear Programming, with R. Byrd, R. Waltz, and Y. Wu, to appear in *Mathematical Programming*, (2011).

Five Other Publications:

1. A Line Search Exact Penalty Method Using Steering Rules, with R. Byrd and G. Lopez-Calva, to appear in *Mathematical Programming*, (2010).

2. A Matrix-Free Algorithm for Equality Constrained Optimization Problems with Rank-Deficient Jacobians, with F. Curtis and A. Waechter, *SIAM J. Optimization*, 20(3): 1224-1249, (2009).

3. Adaptive Barrier Strategies for Nonlinear Interior Methods, *SIAM J. Optimization*, Volume 19, Issue 4, pp. 1674-1693, with A. Waechter and R. Waltz, (2008).

4. A Sequential Quadratic Algorithm with an Additional Equality Constrained Phase, with J.L. Morales and Y. Wu, *IMA Journal on Numerical Analysis*, 7 (2011)

5. On the Solution of Complementarity Problems Arising in American Options Pricing, with L. Feng, V. Linetsky and J.L. Morales, *Optimization Methods and Software*, Volume 26, Issue 4-5 : 813-825 (2011)

Research Collaborators:

The following scientists have collaborated with the principal investigator during the last 48 months:

Richard Byrd (University of Colorado, Boulder),   Mikhail Smelyankiy (INTEL)
Nick Gould, (Rutherford Appleton Lab),   Andreas Waechter (Norhtwestern)
Richard Waltz (University of Southern California)   Frank Cutis (Lehigh)
Will Neveitt (Google Research)

Thesis Adviser: Richard Tapia (Rice University)

Graduate Students and Postdoctoral Associates:

The PI has supervised the following graduate students and postdocs during the past five years:

Frank Curtis (Lehigh University)   Yuchen Wu (Google),
Daniel Robinson (Johns Hopkins University)   G. Lopez-Calva (The Mathworks),
Marcelo Marazzi (The Mathworks)   Long Hei (Chicago Trading Company).

Current PhD students: Gillian Chin, Travis Johnson, Stefan Solntsev, and Samantha Hansen.