Hugo C. García

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EDUCATION

2004-Present **Ph.D. in Industrial Engineering** GPA 3.4 / 4.0
Arizona State University (ASU), Tempe Arizona

Course work included: Statistical Pattern Recognition, Applied Deterministic Operation Research, Applied Stochastic Operations Research, Quality Management, Financial Engineering, Response Surface Methodology, Time Series Analysis, Real Analysis, Discrete Event Simulation, Research Methods, Information Systems, Data Mining (Audit), Scheduling Networks Analysis Modeling (Audit), Reliability Engineering (Audit).

2002- Present **M.S. in Industrial Engineering (73%)** GPA 88 / 100
Instituto Tecnológico de Ciudad Juárez (ITCJ), Juárez México

Course work included: Statistics I and II, Production and Operations Management, Manufacturing Systems, Operations Research, Design of Experiments, Quality Systems, Hygiene and Security Industrial, Work Studies, and Seminar of Industrial Engineering I and II.

2002-2003 **M.S. in Statistics** GPA 3.5 / 4.0
The University of Texas at El Paso (UTEP), El Paso Texas

Course work included: Introduction to Analysis, Probability, Mathematical Statistics I, Mathematical Statistics II, Statistics, Statistics in Research (Regression Analysis), Statistical Computing, Stochastic Processes, Multivariate Data Analysis, Numerical Analysis, Non-Parametric Statistics, and Graduate Research.

2001-2002 **M.B.A. Business Administration** GPA 9.3 / 10
Universidad Autónoma de Ciudad Juárez (UACJ), Juárez México

Concentration in Quality Systems, ***Course work included:*** Philosophy of Quality, Quality Management, Total Quality Control, Topics of Quality, Statistics Methods, Production and Operations Management, Accounting Management, Finance Management, Marketing, Strategic Management, Organizational Behavior, Topics of Human Resources, International Strategy.

1995-2000 **B.S. in Industrial and Systems Engineering** GPA 91 / 100
Instituto Tecnológico y de Estudios Superiores de Monterrey (ITESM), Juárez México

Course work included: Science; Mathematics I, II, III, Physics I, II, III, Chemistry, Mechanics, Differential Equations. ***Quality and Statistics;*** Probability and Statistics, Quality Culture, Statistical Quality Control, Analysis and Design of Experiments, Quality Systems, Regression Analysis . ***Industrial;*** Operation Research I, II, Support Systems for Decision Making, Manufacturing Processes, Industrial Plant Planning, Integrated Manufacturing Systems, Production Management I, II, Production Lab, Programming for Engineering, Work Design, Computer Drawing, Project Feasibility, Engineering Projects. ***Systems;*** Systems Engineering in Organizations, Information Systems, Systems Dynamics, Systems Methodology, Structural Systems Modeling, Planning Systems, Systems Design. ***Economics and Accounting;*** Economics, Financial Accounting, Cost Systems, Project Evaluation (Engineering Economy).

AWARDS

2005	CONACYT Scholarship for graduate study at ASU
2004-2005	ASU Scholarship for graduate study at ASU
2003	ITCJ Scholarship for graduate study at ITCJ
2002-2004	PASE Scholarship for graduate study at UTEP
2001-2002	UACJ Scholarship for graduate study at UACJ
2000	ITESM Honorable Mention for distinguished studies in the Bachelor Degree of Industrial and Systems Engineering
1995	Participated in the Seventh Mathematics International Olympics, "Cuenca del Pacífico", México D.F., México
1995-2000	ITESM Scholarship for undergraduate study at ITESM
1994	Second Place in the Eighth Mathematics National Olympics, Guadalajara, México
1994	First Place in the Mathematics State Olympics, Chihuahua, México
1993	Participated in the Seventh Mathematics National Olympics, Acapulco, México
1993	First Place in the Mathematics State Olympics, Chihuahua, México

PROFESIONAL REGISTRATION

External Trainer Agent, Register Number: GAGH-770919-G93-0005, Secretaría del Trabajo y Previsión Social (STPS), México, 2002.

EMPLOYMENT HISTORY

INDUSTRIAL EXPERIENCE

2006	**Inter**, Freescale, Tempe Arizona
2001-2002	**Consultant and Trainer**, Secretaría del Trabajo y Previsión Social, Juárez México
2000-2001	**Auxiliary Manager**, Jet Service: Transmissions Remanufacturing, Juárez México
1999-2000	**Consultant and Trainer,** Secretaría del Trabajo y Previsión Social, Juárez México
1998	**Auxiliary Industrial Engineer**, Precisión JHESA, Juárez México
1996-1997	**Auxiliary Industrial Engineer**, Surgikos, Juárez México
1995-1996	**Auxiliary Engineer,** Electromundo, Juárez México

EDUCATIONAL EXPERIENCE

2004-Present	**Graduate Research Assistant,** ASU, Tempe Arizona Electronic Assembly Laboratory January 2004-Present
2003	**Graduate Teaching Assistant**, UTEP, El Paso Texas Department of Mathematical Sciences August-December
2003	**Statistics Instructor**, ITCJ, Juárez México Department of Industrial Engineering, Graduate Studies July-August
2003	**Mathematics and Statistics Tutor**, UTEP, El Paso Texas Tutoring and Learning Center January-July
2000	**Summer Internship**, NEMAK Grupo Alfa, Monterrey México
1995-2000	**Undergraduate Teaching Assistant**, ITESM, Juárez México Department of Industrial and Systems Engineering

TECHNICAL SKILLS

Software: Proficient in MS Office Suite and Windows XP.
Technical Software: SAS, Minitab, Matlab, JMP, SPSS, Statistica, SLAM II, Autocad, Design Expert, and Mathematica.

PUBLICATIONS

Villalobos J. René and Hugo C. García (2006) "Outliers Elimination for the Refinement of AVI Systems" *Submitted to Proceedings of 2006 NSF Design, Service, and Manufacturing Grantees and Research Conference,* St. Louis Missouri, July 24-27.

Villalobos J. Rene, Hugo Martínez and Hugo C. García (2006) "Development of a Virtual Inspection System for Solder Paste" *Submitted to Proceedings of 2006 NSF Design, Service, and Manufacturing Grantees and Research Conference,* St. Louis Missouri, July 24-27.

García Hugo C., J. René Villalobos and George Runger (2006) "Automated Feature Selection for Visual Inspection Systems." *Accepted to IEEE Transactions on Automation Science and Engineering*, January.

García Hugo C. and J. René Villalobos (2006) "Automated Refinement and Adaptation of AVI Algorithms" Working Paper, *Electronic Assembly Laboratory*, Arizona State University.

Villalobos J. René and Hugo C. García (2005) "Integrated Quality Environments for Automated Visual Inspection Systems" *Proceeding of Virtual Concept 2005 International Conference*, Biarritz France, November 8-10.

Villalobos J. René and Hugo C. García (2005) "Automated Generation of Inspection Routines for SMD Components", *Proceedings of IIE Annual Conference and Exposition*, Atlanta Georgia, May 14-18.

Villalobos J. René and Hugo C. García (2005) "Automated Feature Selection for SMD Inspection" *Proceedings of 2005 NSF Design, Service, and Manufacturing Grantees and Research Conference*, Scottsdale Arizona, January 3-6.

INVITED CONFERENCE PRESENTATIONS

Villalobos J. Rene and Hugo C. Garcia (2005) "Automated Population Separability Assessment for Automated Inspection Systems Classifiable Populations Issues for Automated Inspection", *Informs Annual Meeting*, San Francisco California, November 13-16.

Villalobos J. René and Hugo C. García (2005) "Integrated Quality Environments for Automated Visual Inspection Systems" *Virtual Concept 2005 International Conference*, Biarritz France, November 8-10.

Villalobos J. René and Hugo C. García (2005) "The Automated Feature Selection using Information Gain versus Discriminant Stepwise Methods", *IIE Annual Conference and Exposition*, Atlanta Georgia, May 14-18.

Villalobos J. René and Hugo C. García (2004) "Classifiable Populations Issues for Automated Inspection", *Informs Annual Meeting*, Denver Colorado, October 24-27.

POSTER PRESENTATIONS

García Hugo C. and J. René Villalobos (2006) "A Methodological Framework for Reconfigurable Automated Visual Inspection (AVI) Systems", *2006 NSF Design, Service, and Manufacturing Grantees and Research Conference*, St. Louis Missouri, July 24-27.

García Hugo C. and J. René Villalobos (2006) "Flexible Inspection Algorithms for Visual Inspection Systems", *6th Annual More Graduate Education at Mountain States Alliance (MGE@MSA) Student Research Conference*, Arizona State University, Tempe Arizona, April 21.

García Hugo C. and J. René Villalobos (2006) "Automated Generation of Automated Visual Inspection Routines for Surface Mounted Assembly Systems", *NSF, Division of Human Resource Development, Joint Annual Meeting*, Washington D.C., March 15-17.

Villalobos J. René and Hugo C. García (2005) "Automated Feature Selection for SMD Inspection" *Proceedings of 2005 NSF Design, Service, and Manufacturing Grantees and Research Conference*, Scottsdale Arizona, January 3-6.

REPORTS

Villalobos J. René, Arnold Maltz, Omar Ahumada, Gerardo Treviño, Octavio Sánchez, Hugo C. García (2006) "Logistics Capacity Study of the Guaymas-Tucson Corridor" *A Report to the Arizona Department of Transportation (ADOT)*, April.