

Bruce A Wilcox, PhD

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OVERVIEW

Experienced teacher, lecturer, and consultant in the fields of advanced analytics, business intelligence, systems engineering, simulation, financial engineering, and applied mathematics. Currently full-time lecturer at USC Vitterbi College of Engineering in the MS Analytics program with outstanding student evaluations. Twelve semesters experience as lecturer at California State University, Long Beach receiving student evaluations consistently well above department and university averages. Visiting international professor at National Economics University, Hanoi, Vietnam, teaching two short courses in quantitative analysis to advanced finance students.

Over 30 years experience with top-tier consulting firms providing management and information systems consulting services to large corporate and Government clients. Most recently, employed full-time for previous eight years with the SAS Institute, a premier provider of advanced analytics software and solutions in the world, responsible for consulting with major SAS government accounts in California on the use of advanced analytics computational tools and solutions.

EDUCATION

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| PhD | Engineering and Applied Mathematics, 2018, Claremont Graduate University (CGU) |
| MBA | Business Administration, 1992, University of California at Los Angeles (UCLA) |
| MS | Computer Engineering, 1981, Carnegie-Mellon University (CMU) |
| BS | Electrical Engineering, 1981, Carnegie-Mellon University (CMU) |

PhD Thesis

A Temporal Data Mining and Unobserved Component Modeling Approach to Credit Risk Correlation Modeling involves the application of data mining, state-space techniques, and advanced simulation to model the default correlation risk in a portfolio of bonds or other debt obligations.

Thesis proposal won a “Transdisciplinary Dissertation Award” from the Claremont Graduate University for “importance of the topic, the synthesis of approaches from multiple disciplines, and the contribution to individual disciplines resulting from a transdisciplinary mode of inquiry”.

Peer-Reviewed Publications

- Bruce Wilcox, Yuran Fei, Jihao Li, Junqiang Wang, Junmeng Xu. 2023. “Automated Analytic Dataset Generation and Assessment for Engineering Analytics Education”, American Society of Engineering Education national conference proceedings.

<https://strategy.asee.org/automated-analytic-dataset-generation-and-assessment-for-engineering-analytics-education>

- Wilcox, Bruce, and Hamano, Fumio. 2017. “Kalman’s Expanding Influence in the Econometrics Discipline.” In Proceedings of the 20th World Congress. Toulouse, France: The International Federation of Automatic Control.

<https://www.sciencedirect.com/science/article/pii/S2405896317301404>

- Wilcox, Bruce, and Hamano, Fumio. 2017. “Model-Based Clustering of Time Series Based on State Space Generative Models.” In AETA 2017 - Recent Advances in Electrical Engineering and Related Sciences: Theory and Application, 447–56. Springer International Publishing.

https://link.springer.com/chapter/10.1007/978-3-319-69814-4_43

UNIVERSITY TEACHING EXPERIENCE

8/2021 – Present Senior Lecturer (Full-Time), University of Southern California, Viteri School of Engineering, Daniel J. Epstein Department of Industrial and Systems Engineering

Joined the full-time teaching faculty in fall 2021 and am currently teaching four courses in the MS Analytics program: *Data Mining* (ISE-535), *Predictive Analytics* (ISE-529), *Introduction to Data Management* (ISE-559), and *Enterprise Business Intelligence and Systems Analytics* (ISE-543), an elective course that I developed for first use in 2020 and re-worked completely (switching tools from SAS to Tableau and Azure ML) for use starting in the spring 2023. Consistently receive excellent student evaluations and classes are always filled with waiting lists.

1/2020 – 8/2021 Part-Time Lecturer, University of Southern California, Viteri School of Engineering, Daniel J. Epstein Department of Industrial and Systems Engineering

Taught *Data Mining* course (ISE-535) in Fall 2020 Summer 2021 semesters. Also, developed new special topics class which is now a regular catalog class (ISE-543), *Enterprise Business Intelligence and Systems Analytics*, which provides students an overview of business intelligence and analytical techniques used in corporate environments and their practical implementation using state-of-the-art Business Intelligence software from the SAS Institute. Taught course in Spring 2020 and Spring 2021. Consistently received excellent student evaluations.

2008 - 2016 Lecturer, California State University at Long Beach College of Business Administration

Taught Spreadsheet Modeling, Decision Support Systems, Business Intelligence/Data Mining, and Quantitative Modeling courses for 12 semesters to undergraduate Information Systems majors. Re-designed Decision Support Systems class to include an emphasis on Business Intelligence topics. In addition to teaching, participated in several community activities including serving as an innovation mentor for three years, and serving as the faculty adviser for a team of MIS students that entered the National Collegiate Inventors Competition. Consistently received excellent student evaluations substantially above College and University averages.

2012 Visiting International Lecturer, National Economics University, Hanoi, Vietnam

Taught two 3-week short courses in Business Intelligence and Decision Support Systems to over 400 students in the Advanced Finance Program of this leading university in the field of economics, management, and business in Vietnam.

2007 Teaching Assistant, Claremont Graduate University

Graduate-level Stochastic Processes class taught at Claremont Graduate University to students seeking an MS in Financial Engineering degree.

INFORMATION SYSTEMS CONSULTING EXPERIENCE

Over 30 years experience in senior positions with premier consulting firms providing management and IS consulting services to major corporate and government clients. In addition, successfully launched information systems consulting firm focusing on public sector clients and built the firm to approximately \$4M in revenue and 20 employees over a three-year period.

Highly successful at preparing proposals for consulting services to public and private sector clients with extensive experience in preparing and delivering presentations to audiences at all levels.

7/2013 – 8/2021 SAS Institute, Senior Account Executive

Responsible for consulting with public sector clients in the use of advanced analytics and business intelligence solutions. Focus of consulting activities has been with public sector health and human services organizations on using advanced data integration and analytical techniques to better serve vulnerable populations. In 2020, named the SAS Account Executive of the year in the Government and Education business unit among approximately 50 Account Executives for achieving over 250% of my targeted account revenue goals.

2010 - 2013 Sierra Systems, Director

Responsible for business development and account management activities focusing on consulting services to public sector clients in the southwest with this mid-sized Systems Integration firm. Established new strategic clients at LA County Department of Health Services, LAUSD, and LA County Office of the Assessor and lead major winning proposal development activity on large (\$12M) new contract with Los Angeles Sheriff's Department.

2005 - 2010 BLIU Consulting Group, Founder and Principal

Sold interest in Bluecrane and started new management consulting business with major consulting contract with the Metropolitan Water District (MWD) of Southern California. Provided project management consulting services to the CIO and the Project Management Organization (PMO) to implement a new software development methodology and standards and procedures for the organization as well as to provide mentoring to project management staff.

2002 - 2005 Bluecrane, Co-CEO and Co-Founder

Successfully launched management consulting firm focusing on Public Sector clients and built the firm to approximately \$4M in revenue and 20 employees over a three-year period. In a very competitive business environment, won contracts with major Public Sector organizations including the State of California, County of Los Angeles, Metropolitan Water District of Southern California, County of Riverside and City/County of San Francisco.

2000 - 2002 Client Director, Razorfish

Partner-level position responsible for business development and account management with this premier internet consulting firm. Sold and managed an internet strategy contract with a startup media and entertainment company and a web content management system implementation project with a major commercial real estate investment firm and a web development project for the Los Angeles Department of Water and Power in a procurement that was pursued by 35 firms.

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1999 – 2000 Managing Director, Nexgenix

Partner-level position responsible for business development and account management. In first six months, sold and managed five accounts that accounted for nearly 50% of the region's revenue.

1995 – 2000 Director, Electronic Data Systems (EDS)

Partner-level position responsible for business development and account management. Responsible for managing the client relationship for largest client in the southwest region (Experian) as well as a large, privately held Internet Service Provider. Identified, marketed and sold a new major account with Experian and responsible for managing a large fixed-price contract for the delivery of a major new custom software client/server application to automate the delivery of Experian's second largest product line.

Account Manager/Project Executive for a large outsourcing contract with a major petroleum refining and distribution company (Ultramar). Responsible for managing a 40-person Applications Software Maintenance and Development staff in the US and Canada as well as the delivery of a variety of Data Center services (MVS, VM, and Tandem processing) to Ultramar.

1981 – 1995 TRW Systems Integration Group, Redondo Beach, California

1992 - 1995 Manager of a start-up business unit within TRW focused on systems integration and software development for state and local government agencies. Responsible for all aspects of business development, marketing, and contract performance. Won all three targets pursued: a \$1 million contract for the Los Angeles County Sheriff's Department, a \$2.6 million contract for the California Department of Justice, and a \$41M contract for the California Department of Corrections.

1981 - 1992 Series of increasingly responsible positions in aerospace software development, systems engineering, and project and functional management culminating in managing a \$4M/year organization performing communications software design and development, software/system integration, and formal system test and functional management of 100 engineers performing systems integration and test activities on all of the projects in the \$200M Division.



Presentation given at an invited session honoring Rudolf Kalman's work and life at the 20th World Congress of the International Federation of Automatic Control held in Toulouse, France in July 2017. All presentations were given by former PhD students of Kalman, but I had the opportunity to represent one of his former PhD students and my thesis director, Dr. Fumio Hamano. It was a thrill and honor to join four other students of Kalman at that session and to discuss how Kalman's systems analysis work has expanded into the field of econometrics which formed a significant basis for the work in my PhD thesis.