

ED WILSON, Ph.D., P.E.

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Redwood Shores, CA

http://intellization.com/files/Edward_Wilson_CV.pdf

Expertise Summary

- Expert in: advanced data analysis; algorithm development; statistical modeling; machine learning; data mining; estimation; system identification; autonomy; computational advertising. All with research and solution development for real problems with real data in various domains. Technically active since beginning Ph.D. research at Stanford in 1989.
- Have enjoyed serving in a variety of roles, including: business owner, Chief Scientist, Director of Research, Lecturer, Professor, Principal Investigator, Expert Analyst/Witness, and Consultant.
- Preferred development platform is MATLAB, used since 1989. Some Java and C.
- Available for consulting relationship where I can provide practical solutions to very difficult technical challenges. Also available for technical executive role.

Professional Experience

- 1995 – pres. **INTELLIZATION**, President Redwood Shores, CA
Selected clients for this 1-5 employee technical consulting business:
- **M.I.T. SPACE SYSTEMS LAB / PAYLOAD SYSTEMS INC.** Cambridge, MA
Developed, implemented, and experimentally validated two patented spacecraft autonomy algorithms. Conducted six test sessions using the MIT SPHERES experimental spacecraft on the International Space Station in 2006 and 2007.
 - **NASA AMES RESEARCH CENTER**, Intelligent Systems Division Moffett Field, CA
Autonomous-system research and development, with application and deployment on several aerospace systems in the Information Sciences Directorate.
 - **BIVWAK DIGITAL MUSIC, INC.** San Mateo, CA
Developed analytical processing software and optimized estimation algorithms for a data mining system to automatically identify music listeners' tastes and recommend new songs (implemented as internet-based personalized radio service).
- 2005 – 2007 **QUANTCAST CORP.**, Chief Scientist San Francisco, CA
- Led analytical development for the world's only open internet ratings service.
 - Developed algorithms to characterize websites and users by processing many terabytes of web traffic data.
 - Developed solution to allow accurate website audience measurement while accounting for cookie deletion, blocking, etc. – a long-standing industry problem.
 - Worked with Scientific Advisors, Stanford Statistics Prof's Hastie and Friedman.
 - First non-founding employee, after beginning as consultant (Intellization).
- 1996 – 1999 STANFORD UNIVERSITY, Lecturer - Eng. 104: Dynamic Behavior Stanford, CA
1995 – 1999 NEURAL APPLICATIONS CORP., Director of Research Redwood Shores, CA / Iowa
1994 – 1995 USS CONSTELLATION (CV-64), Comp. Science Professor Western Pacific Ocean

Education

- Ph.D. **STANFORD UNIVERSITY** ME / EE 1995
"Experiments in Neural-Network Control of a Free-Flying Space Robot," advised by AA Prof's Stephen Rock and Robert Cannon in the Aerospace Robotics Lab.
- S.M. **M.I.T.** Mechanical Engineering 1987
S.B., S.B. **M.I.T.** **Physics**, Mechanical Engineering 1987
Three degrees earned in 4 years at MIT.

Honors, Publications, Patents

Several competitive research contract awards, best paper awards, fellowships
Over 20 first-author [publications](#)
Two US patents issued as sole inventor: a [system identification algorithm](#), and a [fault detection and isolation algorithm](#), both with application to spacecraft
Conference session chair at several IEEE, ISS, and AIAA conferences