

Biographical Sketch for Chuck Kinzer, MS

Role at HFA: Mr. Chuck Kinzer serves as Senior Consulting Scientist, responsible for mathematical modeling, advanced statistical analysis, and performance metrics development. He is a Certified Six Sigma Black Belt and is the lead statistician for HFA.

Areas of Interest: Statistical systems modeling, data analysis, Monte Carlo Modeling linear and non-linear regression analysis, time series analysis, Statistical Design for Manufacturing, Statistical Process Control, Design of Experiments, Poisson Statistics, Zipf's Law, root cause analysis, hypothesis testing, technology metrics, trade studies and a wide range of mathematical modeling methods including Fourier analysis, error budgets, sensitivity analysis and discrete event simulation.

Education:

BS Mathematics-Computer Science 1983, University of the State of New York

BS Physics-Economics 1984, University of Michigan, Ann Arbor

MS Industrial & Systems Engineering 2011, San Jose State University

Professional Experience:

2010-present: Principle Engineer (Consulting), Applied Mathematics, Livermore, California

1998-2010: Senior Staff Systems Engineer, Lockheed-Martin, Palo Alto, California

He began his career as a laser technician at KMS Fusion in Ann Arbor while obtaining his bachelors in physics at the University of Michigan. At the Naval Research Lab he wrote software to perform digital signal processing for towed sonar arrays. Following NRL he spent three years on active duty as a division officer and Damage Control Assistant aboard a guided missile cruiser out of Japan and is currently a commander in the reserves. Most of his engineering has been in the field of optics and lasers performing systems design and modeling, and leading the systems engineering effort of integrated product development teams. He has held positions at Lockheed Martin, Blaze Network Products, TRW, and Xerox, and is currently consulting to Vidtek, Mirrorcle Technologies and the Naval Postgraduate School. Since 2002 he has been performing comprehensive statistical modeling and analysis of the US Navy's Command Safety Assessment (CSA) safety climate survey data under the direction of Dr. Anthony Ciavarelli. His research team successfully modeled actual aviation mishap likelihood with safety climate survey scores using a Mathcad model based on Poisson statistics.

Honors and Awards:

Xerox Taguchi Award, and 2nd Annual Taguchi Symposium

Lockheed Martin Superior Performance Award

Lockheed Martin Productivity Improvement Award

TRW Chairman's Award for Engineering Innovation

NASA Achievement Award for AXAF Optics (Chandra X-ray Space Telescope)

7th Fleet Damage control Battle "DC" Award

US Navy & Marine Corp Commendation Medal and Navy Achievement Medal

Highlights of Professional Activities:

1. Lead Engineer – Airborne Laser design and development (Lockheed Martin)
2. Operations Manager – Laser and Pointer-tracker system (TRW)
3. Design Engineering – Lead designer and systems engineer for optical systems (Lockheed Martin)
4. Design and Manufacturing Engineering – High speed laser copiers (Xerox)
5. Statistical Analyses and Mathematical Modeling (US Navy, Naval Postgraduate School)

Contact Information:

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