



## **Edward L. Safford III**

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### **Intelligent Agents**

#### **Abstract**

Advances in the development and application of complex adaptive systems have generated renewed interest in the concept of artificial intelligence (AI). This has partly been driven by a better understanding of the human brain (neuroscience), and partly by emerging sensor and computational hardware/software components. Integrating these components, such as generative artificial neural nets (GANNs), has been challenging. System predictability at the desired level of autonomy has become a priority. Safe and practical applications depend heavily on training data and operational environments, making them difficult to design and deploy. Specters such as killer malware and artificial general intelligence (AGI) have been given media attention, while relatively little work appears to have been done toward maturing the relevant engineering principles and practices needed. A cross-disciplinary approach which includes neuromorphic engineering offers one path forward.

#### **Biography**

Mr. Safford currently pursues interests in cognitive systems. He served as Core-Engineering Deputy and Specialty Lead for Airborne Mission Systems Software; providing domain knowledge, processes, tools, and technology in support of Lockheed Aeronautics Company products. Various prior engagements included contracted analysis and design of software-intensive systems.

Mr. Safford has a B.S. in Math and Computer Science and an M.S. in Engineering Management. He is an IEEE Millennium Medal recipient and a Senior Member of the IEEE. A Licensed P.E. in the State of Texas, he holds CISSP and CSSLP certifications and was awarded a patent for secure systems and software. His work has been presented at the Software Technology Conference, Digital Avionics Systems Conference, the International Conference on Systems Engineering, and various other conferences and symposiums.