

DR. JEFF NORRIS

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🔗 DrJeffNorris.com

Innovative leader in human-systems interaction and space mission operations with deep expertise in computer science and visualization.

■ HIGHLIGHTS



Extensive technical education

Ph.D. in Computer Science, USC
Master's in EE & CS, MIT
Bachelor's in Computer Science, MIT



Rare combination of skills

Inspiring leader and adept negotiator
Imaginative, user-centered designer
Skilled software developer



Influential industry figure

More than 30 invited keynotes
Formed multiple industry partnerships
Startup mentor and advisor



Over 70 awards

Lew Allen Award for Excellence
Magellan Award (*JPL's highest*)
Software of the Year (*NASA's highest*)

■ EXPERIENCE

NASA Jet Propulsion Laboratory

Pasadena, CA

July 1999
- Present

Current Roles

- Founder and Director, Mission Operations Innovation Office, managing a portfolio focused on transformative change in spacecraft & robot control.
- Founder and Director, JPL Ops Lab, NASA's premier facility for the development of human-system interfaces for mission operations.
- Principal Computer Scientist and lead of multiple projects focused on human-system interaction with a recent emphasis on virtual and augmented reality.

Previous Roles

- Manager, Mission Planning and Execution Systems. Led 160 people responsible for the software, people, and processes that command JPL's missions.
- Uplink System Lead, Curiosity Mars Rover Mission. Managed a large multi-center development team creating the tools used to command the spacecraft.
- Supervisor, Planning Software Systems Group.
- Co-founder/Lead, NASA Ensemble Project, a mission control software suite used by more than 20 projects including five missions across three space agencies.
- Science Uplink System Lead and Operator, Spirit/Opportunity Mars Rover Mission.

Key Contributions

- Conceived of, secured funding for, led, and delivered numerous innovative products into mission-critical operations, advancing the state of space exploration.
- Pioneered new software development practices for mission-critical products.
- Represented NASA in press conferences and media engagements.
- Negotiated and guided complex external partnerships, many leveraging sensitive proprietary technologies.
- Led successful public outreach applications reaching millions of people worldwide, including NASA's first console video game.
- Flight qualified, launched, and operated a payload on the space station.

MIT Artificial Intelligence Laboratory **Cambridge, MA**
Sept 1998 - July 1999
Researcher within the Learning and Vision Group. Designed and built a multiple-camera, vision-based door security system that tracked and identified people approaching the door and opened it if they were authorized to enter.

Charles River Analytics, Inc. **Cambridge, MA**
June 1998 - Sept 1998
Software Engineer on a NASA contract. Designed and implemented a vision-based obstacle map generation and path planning system for a NASA JPL robotics project. Published results and contributed to successful Phase II proposal.

MIT Media Laboratory **Cambridge, MA**
Jan 1995 - June 1998
Researcher on the Television of Tomorrow project. Created some of the earliest online video applications including editable streaming videos and content-based browsing. Design and Development Lead on Knowledge Display Environment project. Hired and managed developers, interacted with project sponsors.

■ EDUCATION

University of Southern California **Los Angeles, CA**
May 2008
Ph.D. in Computer Science, advised by under the advisement of Professor Maja Mataric at the Center for Robotics and Embedded Systems. Dissertation: *Perceptually Motivated Symbol Generation*. Developed a system capable of automatically generating graphical symbols to represent discrete information and demonstrated through human subject trials superiority to a human-designed symbol set (Hangul).

Massachusetts Institute of Technology **Cambridge, MA**
June 1999
Master's degree in Electrical Engineering and Computer Science.
Thesis title: *Face Recognition in Office Environments*.

June 1998
Bachelor's degree in Computer Science (concentration: Artificial Intelligence) and a minor in Music. Elected member of Sigma Xi, research honorarium.

■ SKILLS

Inspiring leader. Skilled recruiter, mentor, builder, and director of teams and organizations. Proven track record in securing funding for projects in challenging funding climates. Effective manager of intricate technical projects, from technology incubation efforts to mission-critical products. Extensively published writer and sought-after keynote speaker. Calm and confident negotiator, able to navigate legal and bureaucratic barriers to forge strategic partnerships and achieve goals.

Imaginative designer. Visionary creator of unprecedented human interfaces that have resulted in agency firsts and patented intellectual property. Knowledgeable practitioner of user-centered and evidence-driven design methods.

Skilled developer. Expert software architect and coder in many languages on desktop, web, and mobile platforms. Adept user of Unity 3D and Eclipse RCP platforms. Experienced architect of scalable, cloud-hosted systems. Pioneering developer of applications for Microsoft HoloLens, Oculus Rift, HTC Vive, and other VR/AR platforms.