



Photo Courtesy of Kerrie Holley

Kerrie Holley

Service-Oriented Architecture (SOA)

U.S. PATENT NO. 7,957,994: Defining service funding for a service oriented architecture

Inducted in 2025 Born: Sept. 7, 1954

Kerrie Holley pioneered service-oriented architecture (SOA), a software architecture and programming model for large enterprises. Guiding the creation and use of business processes, packaged as services, and defining the information technology infrastructure that allows applications to participate in these processes, SOA has benefited organizations across many industries.



Full Bio: <https://www.invent.org/inductees/kerrie-Holley>

Primary Connections:

- Google Cloud: Director in Healthcare and Life Sciences Industry Solutions, 2021-24
- Optum-UnitedHealth Group: Senior Vice President and Technology Fellow, 2016-21
- Cisco Systems Inc.: Vice President and Analytics Chief Technology Officer, 2015-16
- IBM Research & Services: IBM Fellow, Chief Technology Officer for IBM Application Innovation Services and Software Engineer, 1986-2015
- Bank of America: Senior Engineer, 1984-86
- Tandem Computers: Manager, Systems Engineer and Instructor, 1982-84

Education:

- DePaul University: B.A., Mathematics, 1976; J.D., 1982; Honorary Doctorate, 2016

Key Memberships/Awards:

- National Academy of Engineering: Member, 2023
- IBM: Master Inventor, 2012; Fellow, 2006; Distinguished Engineer, 2000
- Black Engineer of the Year Awards (BEYA): Chairman Award, 2003

Things You Should Know:

- Holley grew up on Chicago’s South Side, in an area known for widespread poverty and gang violence. “When you grow up in an environment where safety is a paramount concern, you think differently about problems. That thinking has shaped my life.”
- As a child, he spent his afterschool time at the Sue Duncan Children’s Center, where he tutored children and developed a love of mathematics.
- In 1968, at the dawn of the modern computing era, Holley wrote his first computer program, igniting a lifelong passion for software development that would shape his career in technology.
- In 1986 Holley joined IBM, kicking off a career that would span three decades. He forged a reputation as a visionary architect and distinguished himself through his ability to tackle complex technological challenges and architect groundbreaking systems that addressed critical business needs while setting new industry standards for architecture elegance and efficiency, the basis of his innovations in SOA.
- In 2000, he became the first Black engineer to be named an IBM Distinguished Engineer. He also became a member of the IBM Academy of Technology, composed of the top 300 technologists at IBM. And in 2006 he was named an IBM Fellow, the company’s highest technical leadership position.
- He is the author of several books, the most recent published in 2024, “LLMs and Generative AI for Healthcare: The Next Frontier.”
- He was on the Board of Trustees of DePaul University, the College of Computing and Digital Media Leadership Council at DePaul, and the Naval Studies Board for the National Academy of Sciences.
- Holley has 32 U.S. patents.