

Dr. Jaideep Ganguly, Sc.D. (MIT)

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Summary

As technology increasingly drives business outcomes, my current endeavor is to equip the next generation of tech and business professionals with the tools they need to harness technological advancements and achieve transformative success.

I am an **innovative** and **result-oriented** executive with over 30 years of real world experience in **AI** and **AWS** hosted **software engineering**, specializing in **Deep Learning**, **Large Language Models**, and high performance software development using the **Rust** language.

Experience

Principal Architect, Core Foundation Services, Salesforce

Mar 2024 - Present

Architect and implement next-generation asynchronous services infrastructure, leveraging Rust for its unparalleled performance, memory safety, and concurrency. Prioritize massive scalability and 99.999% reliability to ensure seamless scaling to a very large number of concurrent users. Optimize for high-throughput, low-latency operations with Rust's system-level efficiency, delivering fault tolerance and reducing downtime to just minutes per year.

Vice President, Core Foundation Services, Salesforce

Feb 2022 - Feb 2024

Responsible for tier-1 async services for message processing that handles hundreds of billions of messages every month reliably and predictably. A sophisticated diagnostic system based on LLM and "LangChain" - a framework designed for developing applications using language models, like OpenAI's GPT models.

Head of Compass India Development Center

Dec 2019 - Jul 2020

Set up Compass India software development center from scratch; built a team of world-class software engineers, including senior engineering leaders from top software companies to deliver low latency server endpoints and deep learning models and mobile apps.

Director of Software Engineering, Amazon, Hyderabad

Jun 2010 - Nov 2019

As the leader of the FinTech team at Amazon, I oversaw the computation of payables exceeding a hundred billion dollars annually for Amazon's global business partners. I led my team in developing Machine Learning models to detect fraud and outliers, achieve near-perfect automated responses, and identify patterns to derive actionable business insights, all while adhering to Amazon's stringent service level requirements.

Director of Software Engineering, Microsoft, Hyderabad

Jul 2006 - Aug 2010

Led my team in shipping two versions of Windows Server, including the Remote Desktop Services Gateway, which secures RDP sessions using HTTPS and TLS. We won Microsoft's Worldwide Engineering Excellence Award for Trustworthy Computing and integrated with System Center Virtual Machine Manager (SCVMM) for dynamic virtual machine placement. I also received Microsoft Management Excellence Award.

Education

Doctor of Science, Massachusetts Institute of Technology, 1989.

Dissertation on formalization, design, and implementation of a knowledge-based system for qualitative reasoning.

Master of Science, Massachusetts Institute of Technology, 1986.

Bachelor of Technology (Honors), Indian Institute of Technology, Kharagpur, 1984.

Awarded the "Sir Dorabji Tata Award" for outstanding academic performance during undergraduate

studies.

Articles & Books

- [A Brief History of Machine Learning](#)
- [Machine Learning and the Grand Challenge](#)
- [Moving to the Rust Programming Language](#)
- [Kotlin Cookbook](#)
- [Functional Programming – Design through Functional Composition & Monads](#)

Activities

- [AIDays Keynote: AI - Past, Present & Future, March 31, 2024, Hyderabad.](#)
- Distinguished Lecture on “Recurrent Neural Networks in Sequence Learning for Dialog Systems”, November 16th, 2016, IIIT Hyderabad.
- Invited talk titled “Recurrent Neural Networks in Sequence Learning” at Department of Computer Science, Indian Institute of Technology, Kharagpur, Nov 3, 2016.
- Educational Counselor, MIT to interview and identify the truly gifted and brilliant applicants for admission to MIT from India.
- Invited speaker at IET – Institute of Engineering & Technology international conference on Software as a Service, Oct 2008, Bangalore, India.
- Adjunct Professor, Indian Institute of Technology, Kharagpur, Sep 1997 - Jan 1998.
- Invited speaker on “Qualitative Behavior of Engineering Systems from Structural Descriptions”, Knowledge Systems Laboratory, Department of Computer Science, Stanford University, 1989.
- Invited speaker on Expert Systems at Cornell University, 1987.

Hobbies

An avid pianist, enjoy playing [Bollywood melodies and Tagore songs](#).