

# From Code to Data: AI at Scale for Developer Productivity

Neel Sundaresan  
Microsoft  
neels@microsoft.com

## ABSTRACT

The last decade has seen three great phenomena in computing – the rebirth of AI algorithms and AI hardware; the evolution of cloud computing and distributed software development; and the explosive growth of open source software that has led to the availability of code as data, and its associated metadata, at scale. In this talk, we will describe how we take advantage of innovations in these dimensions to improve developer productivity and infuse AI and automation into software processes. We will discuss examples of how we built intelligent software by creating AI algorithms driven by deep understanding of code as data. In addition, we will talk about how data can also be treated as code for the next-generation AI-infused software development.

## BIOGRAPHY

Neel Sundaresan is a Partner Director of Data & AI for the Developer division of Microsoft's Cloud and AI organization. Prior to Microsoft he was a Senior director of eBay Research and Data Labs. He was research manager at the IBM Almaden Research Center and also was a founder CTO of a Network CRM company. In his career he has led work in diverse areas from Compilers and program generators, Parallel and distributed computing Internet Search and Commerce, and AI-driven software systems. He has built and scaled organizations from scratch with diverse talent in engineering, machine learning, and economics. He has over a 100 publications that spans areas from computer science to economics. He has over 170 patents to his name and is a frequent speaker at technical conferences. He is

passionate about providing educational and career access for the financially disadvantaged students and has founded a successful program called Inspire!. He has an undergraduate in mathematics and a masters and a PhD in computer science from IIT (Mumbai) and Indiana University, respectively.



Permission to make digital or hard copies of part or all of this work for personal or classroom use is granted without fee provided that copies are not made or distributed for profit or commercial advantage and that copies bear this notice and the full citation on the first page. Copyrights for third-party components of this work must be honored. For all other uses, contact the Owner/Author.

KDD '19, August 4–8, 2019, Anchorage, AK, USA.

© 2019 Copyright is held by the owner/author(s).

ACM ISBN 978-1-4503-6201-6/19/08.

DOI: <https://doi.org/10.1145/3292500.3340410>