



The Definitive Guide to Google Vertex AI

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To my incredible wife, who gracefully navigates our cloud rivalry with love and patience. This book wouldn't be possible without your constant support and encouragement. Thank you for tolerating my late-night writing and even later-night snacking. Your patience is my favorite superpower.

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And to my colleagues, the wizards of Google Cloud, who speak fluent Python and dream in code – without you, this book would just be a collection of funny error messages.

This book is dedicated to all of you. May our models always converge, and may we all never run out of GPUs!

– Jasmeet Bhatia

To my mother, Smt. Sarita Devi, and my father, Mr. Inderpal Singh, for their sacrifices, constant love, and never-ending support. Thank you for teaching me to believe in myself, in God, and in my dreams.

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And, most importantly, to all the readers – I hope this book helps you with your goals, because that's the real motivation behind writing this book and every single technical article that I share publicly on my blog.

– Kartik Chaudhary

Contributors

About the authors

Jasmeet Bhatia is a machine learning solution architect with over 18 years of industry experience, with the last 10 years focused on global-scale data analytics and machine learning solutions. In his current role at Google, he works closely with key GCP enterprise customers to provide them guidance on how to best use Google's cutting-edge machine learning products. At Google, he has also worked as part of the Area 120 incubator on building innovative data products such as Demand Signals, and he has been involved in the launch of Google products such as Time Series Insights. Before Google, he worked in similar roles at Microsoft and Deloitte.

When not immersed in technology, he loves spending time with his wife and two daughters, reading books, watching movies, and exploring the scenic trails of southern California.

He holds a bachelor's degree in electronics engineering from Jamia Millia Islamia University in India and an MBA from the University of California Los Angeles (UCLA) Anderson School of Management.

Kartik Chaudhary is an AI enthusiast, educator, and ML professional with 6+ years of industry experience. He currently works as a senior AI engineer with Google to design and architect ML solutions for Google's strategic customers, leveraging core Google products, frameworks, and AI tools. He previously worked with UHG, as a data scientist, and helped in making the healthcare system work better for everyone. Kartik has filed nine patents at the intersection of AI and healthcare.

Kartik loves sharing knowledge and runs his own blog on AI, titled *Drops of AI*.

Away from work, he loves watching anime and movies and capturing the beauty of sunsets.

I would like to thank my parents, my brother, and my friends for their constant love and support.

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Gopala Dhar has worked with and implemented state-of-the-art technology in the field of AI to solve real-world business use cases at scale. He has four published patents to his name, ranging from the field of software design to hardware manufacturing, including embedded systems. His latest stint is at Google as an AI engineer. His areas of expertise include ML, ML system design, reinforcement learning, and, most recently, generative AI. He shares what he learns frequently through blog posts and open source contributions. He has won several awards from various academic as well as professional institutions, including the Indian Institute of Technology in Mumbai, the Indian Institute of Management in Bangalore, Texas Instruments, and Google.

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