SOFTWARE DEVELOPMENT

Statistics Every Programmer Needs

Gary Sutton

Whether you're analyzing application performance metrics, creating relevant dashboards and reports, or immersing yourself in a numbers-heavy coding project, every programmer needs to know how to turn raw data into actionable insight. Statistics and quantitative analysis are the essential tools every programmer needs to clarify uncertainty, optimize outcomes, and make informed choices.

Statistics Every Programmer Needs teaches you how to apply statistics to the everyday problems you'll face as a software developer. Each chapter is a new tutorial. You'll predict ultramarathon times using linear regression, forecast stock prices with time series models, analyze system reliability using Markov chains, and much more. The book emphasizes a balance between theory and hands-on Python implementation, with annotated code and real-world examples to ensure practical understanding and adaptability across industries.

What's Inside

- Probability basics and distributions
- Random variables
- Regression
- Decision trees and random forests
- Time series analysis
- Linear programming
- Monte Carlo and Markov methods and much more

Examples are in Python.

Gary Sutton is a business intelligence and analytics leader and the author of *Statistics Slam Dunk: Statistical analysis with R on real NBA data*.

For print book owners, all digital formats are free:
https://www.manning.com/freebook

"A well-organized tour of the statistical, machine learning and optimization tools every data science programmer needs."
—Peter Bruce, Author of *Statistics for Data Science and Analytics*

"Turns statistics from a stumbling block into a superpower. Clear, relevant, and written with a coder's mindset!"
—Mahima Bansod, LogicMonitor

"Essential! Stats and modeling with an emphasis on real-world system design."
—Anupam Samanta, Google

"A great blend of theory and practice."
—Ariel Andres
Scotia Global Asset Management

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