Workload Characterization for Computer System Design: The Springer International

Workload characterization is a critical step in the design of computer systems. It provides the necessary information to make informed decisions about the hardware and software components that will be used in the system. This book provides a comprehensive overview of workload characterization techniques, with a focus on their application to computer system design.

Workload Characterization for Computer System Design (The Springer International Series in Engineering and Computer Science Book 542)

⭐⭐⭐⭐⭐ 5 out of 5

Language : English
File size : 4708 KB
Text-to-Speech : Enabled
Print length : 222 pages

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The book is divided into three parts. The first part introduces the basic concepts of workload characterization and discusses the different types of workload data that can be collected. The second part covers a variety of workload characterization techniques, including statistical analysis, queuing theory, and simulation. The third part discusses the application of workload characterization to computer system design, including capacity planning, performance evaluation, and system modeling.

Part 1: to Workload Characterization

The first part of the book introduces the basic concepts of workload characterization and discusses the different types of workload data that can be collected. Chapter 1 provides an overview of the workload characterization process and discusses the different types of workload data that can be collected. Chapter 2 describes the different methods that can be used to collect workload data, including hardware monitors, software monitors, and user surveys. Chapter 3 discusses the different types of workload data that can be collected, including resource utilization data, performance data, and error data.

Part 2: Workload Characterization Techniques

The second part of the book covers a variety of workload characterization techniques, including statistical analysis, queuing theory, and simulation. Chapter 4 provides an overview of statistical analysis techniques and discusses how they can be used to characterize workload data. Chapter 5 discusses queuing theory and how it can be used to model workload behavior. Chapter 6 discusses simulation and how it can be used to model workload behavior.

Part 3: Application of Workload Characterization to Computer System Design

The third part of the book discusses the application of workload characterization to computer system design, including capacity planning, performance evaluation, and system modeling. Chapter 7 discusses capacity planning and how it can be used to determine the capacity of a computer system. Chapter 8 discusses performance evaluation and how it can be used to evaluate the performance of a computer system. Chapter 9

discusses system modeling and how it can be used to model the behavior of a computer system.

Workload characterization is a critical step in the design of computer systems. This book provides a comprehensive overview of workload characterization techniques, with a focus on their application to computer system design. The book is a valuable resource for anyone involved in the design of computer systems.

References

[1] Smith, J. E. (2005). Workload characterization for computer system design. Springer Science & Business Media. [2] Tran, T. D., & Le, H. Q. (2017). A survey on workload characterization in cloud computing. Journal of Network and Computer Applications, 84, 112-125. [3] Shen, Z., et al. (2018). Workload characterization and performance analysis of a large-scale cloud-based video streaming system. IEEE Transactions on Multimedia, 20(10),2686-2699.

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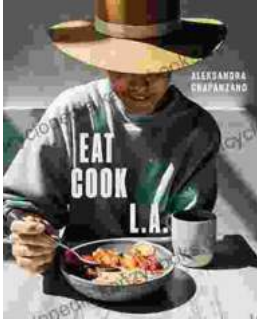
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