



Helper Cores

By Ganusov, Ilya

Condition: New. Publisher/Verlag: VDM Verlag Dr. Müller | Using General-Purpose Processor Cores as Prefetching Engines in Chip Multiprocessor Architectures | Scaling the performance of applications with little thread-level parallelism is one of the biggest impediments to the success of multi-core architectures. At the same time, the long latency of memory accesses represents one of the largest performance bottlenecks for individual program threads. Various prefetching techniques have been previously developed to fetch critical data before they are requested by the processor and eliminate processor stalls. This dissertation proposes two new techniques that utilize extra cores of a chip multiprocessor (CMP) as prefetching engines to increase the performance of single program threads. These approaches leverage the execution capabilities of chip multiprocessors to compute data addresses that are likely to miss in the cache and prefetch them ahead of program thread load requests. We demonstrate significant performance improvements over a baseline that already includes an aggressive hardware stream prefetcher. We also show that the proposed techniques provide competitive performance, incur less energy overhead, and require considerably simpler hardware support than previously proposed prefetching mechanisms. | Format: Paperback | Language/Sprache: english | 108 pp.



[DOWNLOAD PDF](#)



[READ ONLINE](#)

[7.6 MB]

Reviews

An incredibly wonderful book with perfect and lucid explanations. It normally is not going to price a lot of. I am just very happy to tell you that this is the greatest pdf we have go through within my personal lifestyle and could be the finest book for at any time.

-- Bart Lowe

This is basically the greatest pdf i actually have go through till now. It is definitely simplistic but surprises within the fifty percent in the ebook. I am easily will get a delight of studying a published ebook.

-- Hyman O'Conner III

You May Also Like



All New Kindle Fire HD Complete Guide for Seniors: How to Get the Most Out of Your Kindle Devices with Simple Step-By Step Instructions in 30 Minutes. (Paperback)

Createspace Independent Publishing Platform, 2017. Paperback. Condition: New. Language: English . Brand New Book ***** Print on Demand *****. Are you looking for a kindle fire HD guide that could help you get the most out of your device? Whether you own...



INTERNATIONAL EDITION---Marketing: Real People, Real Choices, 8th edition

Paperback. Condition: New. INTERNATIONAL EDITION, brand New, International/Global Edition, NOT LOOSE LEAF VERSION,NO SOLUTION MANUAL, NO CD, NO ACCESS CARD, Soft Cover/ Paper Back written in English, Different ISBN and Cover Image from US Edition; Sometimes, the title is different from US...



INTERNATIONAL EDITION---Marketing Channels, 8th edition

Paperback. Condition: New. INTERNATIONAL EDITION, brand New, International/Global Edition, NOT LOOSE LEAF VERSION,NO SOLUTION MANUAL, NO CD, NO ACCESS CARD, Soft Cover/ Paper Back written in English, Different ISBN and Cover Image from US Edition; Sometimes, the title is different from US...



Standard Catalog of World Coins 2001-Date 2016

FandW Publications Inc, 2015. PAP. Condition: New. New Book. Shipped from UK in 4 to 14 days. Established seller since 2000.



Artificial Intelligence: Made Easy w Ruby Programming Learn to Create your Problem Solving Algorithms TODAY w Machine Learning Data . engineering, r programming, iOS development)

CreateSpace Independent Publishing Platform. Paperback. Condition: New. This item is printed on demand. 150 pages. Dimensions: 9.0in. x 6.0in. x 0.3in.Design the MIND of a Robotic Thinker! Every chapter is very clearly described and all of the information was presented consistently. -...



Performance Modeling and Engineering

Springer, 2008. Hardcover. Condition: New. This book presents the latest advances in methodology and techniques of performance modeling and engineering, ranging from theoretical advances to system and architecture developments, from technology to economics, from academic innovations to engineering processes, from statistical analysis...