David Cheriton
Professor of Computer Science, Emeritus
Communication

CONTACT INFORMATION
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Bio

BIO
Cheriton's research includes the areas of high-performance distributed systems, and high-speed computer communication with a particular interest in protocol design. He leads the Distributed Systems Group in the TRIAD project, focused on understanding and solving problems with the Internet architecture. He has also been teaching and writing about object-oriented programming, building on his experience with OOP in systems building.

ACADEMIC APPOINTMENTS
• Emeritus Faculty, Acad Council, Communication

HONORS AND AWARDS
• SigComm'03 Award, Association for Computing Machinery (2003)

PROFESSIONAL EDUCATION
• PhD. Waterloo (1978)

LINKS
• https://web.stanford.edu/~cheriton

Publications

PUBLICATIONS
• Efficient Correction of Anomalies in Snapshot Isolation Transactions ACM TRANSACTIONS ON ARCHITECTURE AND CODE OPTIMIZATION
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• Scalable Network-Layer Defense Against Internet Bandwidth-Flooding Attacks IEEE-ACM TRANSACTIONS ON NETWORKING
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• Active Internet Traffic Filtering: Real-time response to denial-of-service attacks 2005 USENIX Annual Technical Conference
  Argyraki, K., Cheriton, D. R.
Feedback based routing  1st HotNets Workshop  
Zhu, D. P., Gritter, M., Cheriton, D. R.  
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Gritter, M., Cheriton, D. R.  
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Holbrook, H. W., Cheriton, D. R.  
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Borrowed-Virtual-Time (BVT) scheduling: supporting latency-sensitive threads in a general-purpose scheduler  17th ACM Symposium on Operating Systems Principles (SOSP '99)  
DUDA, K. J., Cheriton, D. R.  
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Cheriton, D. R., Kutter, R. A.  
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Greenwald, M., CHERITON, D.  
USENIX ASSOC.1996: 123–136

Specializing object-oriented RPC for functionality and performance  16th International Conference on Distributed Computing Systems  
ZELESKO, M. J., Cheriton, D. R.  
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Using projection aggregations to support scalability in distributed simulation  16th International Conference on Distributed Computing Systems  
Singhal, S. K., Cheriton, D. R.  
IEEE COMPUTER SOC.1996: 196–206

EXPLOITING POSITION HISTORY FOR EFFICIENT REMOTE RENDERING IN NETWORKED VIRTUAL-REALITY PRESENCE-TELEOPERATORS AND VIRTUAL ENVIRONMENTS  
Singhal, S. K., Cheriton, D. R.  

CHIRON PARALLEL PROGRAM PERFORMANCE VISUALIZATION SYSTEM  COMPUTER-AIDED DESIGN  
GOOSEN, H. A., Karlin, A. R., CHERITON, D., Polzin, D.  
1994; 26 (12): 899-906

A CACHING MODEL OF OPERATING SYSTEM KERNEL FUNCTIONALITY  1st USENIX Symposium on Operating Systems Design and Implementation (OSDI)
• RESTRUCTURING A PARALLEL SIMULATION TO IMPROVE CACHE BEHAVIOR IN A SHARED-MEMORY MULTIPROCESSOR - THE VALUE OF DISTRIBUTED SYNCHRONIZATION
  7th Workshop on Parallel and Distributed Simulation (PADS 93)
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• APPLICATION-CONTROLLED PHYSICAL MEMORY USING EXTERNAL PAGE-CACHE MANAGEMENT
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• BLAZENET - A PACKET-SWITCHED WIDE-Area NETWORK WITH PHOTONIC DATA PATH
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• MULTICAST ROUTING IN DATAGRAM INTERNETS AND EXTENDED LANS
  ACM TRANSACTIONS ON COMPUTER SYSTEMS
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• DECENTRALIZING A GLOBAL NAMING SERVICE FOR IMPROVED PERFORMANCE AND FAULT TOLERANCE
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  Cheriton, D. R., Zwaenepoel, W.
  1985; 3 (2): 77-107

• AMAZE - A MULTIPLAYER COMPUTER GAME
  IEEE SOFTWARE
  BERGLUND, E. J., Cheriton, D. R.
  1985; 2 (3): 30-39
THE V-KERNEL - A SOFTWARE BASE FOR DISTRIBUTED SYSTEMS

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