

## Jesse D. Kornblum

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ManTech International Corporation  
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### Education

M. Eng., Electrical Engineering and Computer Science, Massachusetts Institute of Technology, 1999

B.S. Computer Science, Massachusetts Institute of Technology, 1999

### Employment

ManTech International Corporation 2005-Present  
Senior Computer Forensic Scientist Columbia, MD

United States Department of Justice 2004-2005  
Lead Information Technology Specialist, Washington D.C.  
Computer Crime and Intellectual Property  
Section

United States Naval Academy 2003-2004  
Instructor, Computer Science Department Annapolis, MD

Air Force Office of Special Investigations 2003  
Chief, Computer Investigations and Operations Andrews AFB, MD

Air Force Office of Special Investigations 2001-2003  
Chief of Research and Development, Computer Andrews AFB, MD  
Investigations and Operations

Air Force Office of Special Investigations 1999-2001  
Computer Crime Investigator Andrews AFB, MD

### Service

Member of the Editorial Board for the journal *Digital Investigation*

Technical Program Committee Member for Digital Forensic Research Workshop 2005-2010

Technical Editor for *Windows Forensic Analysis* by Harlan Carvey

Member of the DFRWS Common Digital Evidence Storage Format Working Group

### Awards and Honors

USNA Computer Science Department "Top Geek", Fall 2003

HQ AFOSI Company Grade Officer of the Quarter, 2nd Quarter 2002

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### Refereed Papers

- J. Kornblum, *Implementing BitLocker Drive Encryption for Forensic Analysis*, Digital Investigation, 5(3): 75-84, March 2009.
- J. Kornblum, *Auditing Hash Sets: Lessons Learned from Jurassic Park*, Digital Forensic Practice, 2(3):108-112, July 2008.
- E. Libster and J. Kornblum, *A Proposal for an Integrated Memory Acquisition Mechanism*, Operating Systems Review, 42(3):14-20, April 2008.
- J. Kornblum, *Using Every Part of the Buffalo in Windows Memory Analysis*, Digital Investigation, 4(1):24-29, March 2007.
- J. Kornblum, *Exploiting the Rootkit Paradox with Windows Memory Analysis*, International Journal of Digital Evidence, 5(1), Fall 2006.
- B. Carrier, E. Casey, S. Garfinkel, J. Kornblum, C. Hosmer, M. Rogers, and P. Turner, *Standardizing Digital Evidence Storage*, Communications of the ACM, February, 2006.
- J. Kornblum, *The Linux Kernel and the Forensic Acquisition of Hard Disks with an Odd Number of Sectors*, International Journal of Digital Evidence, Volume 3(2), Fall 2004.

### Conference Papers

- J. Kornblum *Using JPEG Quantization Tables to Identify Imagery Processed by Software*, Digital Investigation, 5(S):21-25, Proceedings of the Digital Forensic Workshop, August 2008.
- J. Kornblum, *Identifying Almost Identical Files Using Context Triggered Piecewise Hashing*, Digital Investigation, 3(S):91-97, Proceedings of the Digital Forensic Workshop, August 2006.
- J. Kornblum, *Preservation of Fragile Digital Evidence by First Responders*, Digital Forensic Research Workshop, Syracuse, NY, August 2002.

### Miscellaneous Papers

- J. Kornblum, *When I'm Sixty Four (Bits)*, ManTech Tech Note 2009-01, August 2009.

### Forensic Tools

- J. Kornblum **hashdeep**, Audits a set of known hashes against a given directory, 2008.
- J. Kornblum, **Miss Identify**, Identifies PE executables that do not have an executable extension. Optionally identifies all executables in a set of input files, 2008.
- J. Kornblum, **dc3dd**, a version of GNU dd patched for computer forensics, 2008.
- J. Kornblum, **ssdeep**, Computes and matches context triggered piecewise hashes, also called fuzzy hashing. Matches similar but not identical files, 2006.
- J. Kornblum, **md5deep**, A set of recursive programs for computing MD5, SHA-1, SHA-256, Tiger, and Whirlpool hashes. Capable of both positive and negative matching, 2002.
- J. Kornblum, **Investigator Controlled Evidence Extraction Engine (ICE<sup>3</sup>)**. Boot CD for automated disk imaging.

J. Kornblum, **First Responder's Evidence Disk (FRED)**. Automated Windows incident response tool.

K. Kendall, J. Kornblum, N. Mikus, **foremost**. A linux based file carving program. Recovers files from disk images based on their headers and footers, 2001.