EREZ ZADOK, CURRICULUM VITAE

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RESEARCH INTERESTS

Operating systems with a special focus on file systems, storage, clouds, big data, hard-ware/architecture, encryption, security, benchmarking, performance analysis and optimization, energy efficiency, and system administration.

EDUCATION

May 2001 Ph.D., Computer Science, Columbia University, New York, NY,

FiST: A System for Stackable File-System Code Generation.

Sep 1997 M.Phil., Computer Science, Columbia University, New York, NY

Oct 1994 M.S., Computer Science, Columbia University, New York, NY

Discovery and Hot Replacement of Replicated Read-Only File Systems, with Application to

Mobile Computing

May 1991 B.S., Computer Science, Columbia University, New York, NY

May 1982 Certified Technician, Electrical Engineering, Holtz College, Israel

PROFESSIONAL EXPERIENCE

Aug 2017-present Graduate Academic Adviser, Computer Science Department, Stony Brook University

Jan 2016–present Professor, Computer Science Department, Stony Brook University

Jan 2007–2015 Associate Professor, Computer Science Department, Stony Brook University

Jan 2001–Jan 2007 Assistant Professor, Computer Science Department, Stony Brook University

2013–present Director, Smart Energy Technologies (SET) Faculty Cluster, Stony Brook University

2022–present Technical Expert; Latham & Watkins, LLP

2021–present Technical Expert; King & Spalding LLP.

2021–2022 Technical Expert; Wilson Sonsini Goodrich & Rosati (WSGR) LLP.

2021–present Technical Expert; Perkins Coie LLP

2021–present Technical Expert; Morrison & Forester, LLP.

2021–2022 Technical Expert; Jones Day, LLP.

2021-present Technical Expert; Orrick, Herrington & Sutcliffe, LLP.

2021 Technical Expert; Fasken Martineau DuMoulin LLP

2020 Technical Expert; United States Attorney's Office, Eastern District of New York

2020 Technical Expert; Latham & Watkins, LLP



2020	Technical Expert; Morgan Lewis & Bockius LLP
2020–2021	Technical Expert; Covington & Burling, LLP
2019–2020	Technical Expert; Quinn Emanuel Urquhart & Sullivan, LLP
2019	Technical Expert; Hogan Lovells LLP.
2018–2020	Technical Expert; King & Spalding LLP.
2018–2019	Technical Expert; Orrick, Herrington & Sutcliffe, LLP.
2017–2018	Technical Expert; Weil, Gotshal & Manges LLP.
2017–2019	Technical Expert; Keker, Van Nest, & Peters LLP.
2016–2018	Technical Expert; Sterne, Kessler, Goldstein & Fox, P.L.L.C.
2015–2018	Technical Expert; Wilmer Cutler Pickering Hale and Dorr LLP. (WilmerHale)
2015–2017	Technical Expert; Ropes & Gray, LLP.
2014–2015	Technical Expert; Foley & Lardner, LLP.
2014–2016	Technical Expert; Latham & Watkins, LLP.
2014–2016	Technical Expert; Keker & Van Nest, LLP.
2013-present	Managing Member; Zadoks Consulting, LLC.
2013–2014	Technical Expert; Sterne, Kessler, Goldstein & Fox, P.L.L.C.
2013	Technical Expert; Akin, Gump, Strauss, Hauer & Feld, LLP.
2012–2015	Technical Expert; Susman Godfrey, LLP.
2012–2013	Technical Expert; Fish Richardson, LLP.
2010–2011	Technical Expert; Sughrue Mion, LLP.
2010	Technical Expert; One LLP.
2009–2010	Consultant; CTERA Networks, Inc.
2009-present	Consultant; Packet General Networks, Inc.
2006–2007	Technical Expert; Hennigan, Bennett, and Dorman, LLP.
1991–2000	Graduate Research Assistant, Computer Science Department, Columbia University
1999–2000	Director of Software Development, HydraWEB Technologies, Inc.
1994–1998	Project Leader, HydraWEB Technologies, Inc.
1990–1998	Consultant, SOS Corporation
1997	Manager of Computing Facilities, Computer Science Department, Columbia University
1991–1998	Technical Staff Member, Computer Science Department, Columbia University
1989–1991	Assistant Lab Manager, Academic Information Systems, Columbia University
1987–1989	Student Consultant, Academic Information Systems, Columbia University



1984–1986 National Army Service, Israeli Air Force, Israel
 1982–1984 Programmer, Commodore Israel, Tel-Aviv, Israel
 1981–1984 Computer Lab Manager, Holtz College, Tel-Aviv, Israel

PERSONAL

Born December 4, 1964, Tel-Aviv, Israel.

Married, one child.

Citizenships: U.S.A and Israel Fluent in English and Hebrew

Member: ACM, IEEE, IEEE Computer Society, USENIX

Affiliate: Storage Systems Research Center (SSRC), Jack Baskin School of Engineering, University of

California, Santa Cruz, California.

Member: The I/O Traces, Tools and Analysis (IOTTA) Technical Work Group (TWG), part of the the Storage Networking Industry Association (SNIA).

FUNDING

Oct 2022–present	CNS Core: Large: Systems and Verifiable Metrics for Sustainable Data Centers. NSF. \$1,500,000 (SBU share \$928,403, 4 years. Co-PI with four other SBU faculty, collaborative with Binghamton University and Penn State University.
2022	CNS Core: Medium: Optimizing Storage Caches via Adaptive and Reconfigurable Tiering. NSF Research Experiences for Undergraduates (REU) supplement. \$16,000. Lead-PI with one other SBU faculty, collaborative with Emory University.
2022	CNS Core: III: Medium: Collaborative Research: Optimizing and Understanding Large Parameter Spaces in Storage Systems. NSF Research Experiences for Undergraduates (REU) supplement. \$16,000. Lead PI with one other.
Oct 2021–present	CNS Core: Medium: Optimizing Storage Caches via Adaptive and Reconfigurable Tiering. NSF. \$800,000 (SBU share \$533,333, 3 years. Lead-PI with one other SBU faculty, collaborative with Emory University.
Oct 2021–present	CNS Core: Medium: Secure, Reliable, and Efficient Long-Term Storage. NSF. \$1,198,842 (SBU share \$717,303, 4 years. Lead-PI with one other SBU faculty, collaborative with UC Santa Cruz.
2021–2022	Kubernetes/Containerizations on GPU Clusters for AI. SUNY-IBM AI Collaborative Research Alliance. \$100,000. Co-PI with two others.
2020–2021	Automated Cross-Validation of TLS 1.3 Implementations. Facebook Faculty Research Award. \$50,000. Lead PI with two others.
Oct 2020–present	SCC-IRG Track 1: Smart Aging: Connecting Communities Using Low-Cost and Secure Sensing Technologies. NSF Smart and Connected Communities.



\$1,700,126, 4 years. Co-PI with five other SBU faculty.

2020	FMitF: Track I: NLP-Assisted Formal Verification of the NFS Distributed File System Protocol. NSF Research Experiences for Undergraduates (REU) supplement. \$16,000. Lead PI with two others.
2020	CNS Core: III: Medium: Collaborative Research: Optimizing and Understanding Large Parameter Spaces in Storage Systems. NSF Research Experiences for Undergraduates (REU) supplement. \$8,000. Lead PI with one other.
Oct 2019–present	CNS Core: III: Medium: Collaborative Research: Optimizing and Understanding Large Parameter Spaces in Storage Systems NSF. \$1,088,017 (SBU share \$823,142), 4 years. Lead-PI with one other SBU faculty, collaborative with Harvey Mudd College.
Oct 2019–present	FMitF: Track I: NLP-Assisted Formal Verification of the NFS Distributed File System Protocol NSF. \$748,300, 3 years. Lead-PI with two other SBU faculty.
2019	CI-SUSTAIN: National File System Trace Repository. NSF Research Experiences for Undergraduates (REU) supplement. \$8,000. Sole PI.
2019	Study of a Novel Non-Wearable Respiration and Heart Rate Sensor in Cardiopul-monary Exercise Testing. Stony Brook College of Engineering and Applied Sciences, SEED grant. \$15,000, Co-PI with five others.
2019	Realizing the Full Performance and Parallelization Potential of Modern Storage Architectures for Big Data Applications. Stony Brook Research Foundation, SEED grant. \$60,000, Co-PI with Anshul Gandhi.
2018	Storage/Deduplication research. Dell-EMC Corporation. \$25,000, Single PI.
Jun 2017–present	<i>CI-SUSTAIN: National File System Trace Repository.</i> NSF. \$129,867 (SBU share), 3 years. Co-PI with lead institution Harvey Mudd College.
2017–2022	I/UCRC Phase II: Center for Visual and Decision Informatics (CVDI) Site at SUNY Stony Brook. NSF. \$400,000, 4 years. Co-PI with A. Kaufman, K. Mueller, H. Schwartz, and D. Samaras.
2017	Dell-EMC Corporation. Storage/Deduplication research, \$25,000, Single PI.
2016–2021	NRT-DESE: Interdisciplinary Graduate Training to Understand and Inform Decision Processes Using Advanced Spatial Data Analysis and Visualization (STRIDE). NSF. \$2,993,930, 5 years. Senior personnel.
2016–2019	Early Detection of User-impersonating Attackers using Multilayer Tripwires, U.S. Office of Naval Research (ONR). \$586,215, 3 years. Co-PI with Nick Nikiforakis.
Jun 2016–2019	EAGER: Elastic Multi-layer Memcached Tiers NSF. \$257,165, 2 years. Co-PI with Anshul Gandhi.
2016	EMC Corporation. Storage/Deduplication research, \$25,000, Single PI.
2015	EMC Corporation. Storage/Deduplication research, \$25,000, Single PI.
Feb 2015	Student Travel Support for the 13 th USENIX Conference on File and Storage Technologies (FAST 2015). NSF. \$20,000, 1 year. Sole PI.
Sep 2014–2017	Adaptive Runtime Verification and Recovery for Mission-Critical Software. U.S. Air Force Office of Scientific Research (AFOSR). \$620,861, 3 years. Co-PI with



	Scott A. Smolka and Scott D. Stoller. (Collaboration with NASA JPL.)
Jan 2014–2016	Smarter Electric Grid Research, Innovation, Development, Demonstration, Deployment Center (SGRID3). Brookhaven Science Associates LLC (BNL), \$236,397, 1 year. Lead-PI with one other Stony Brook Co-PI.
2014	EMC Corporation. Storage/Deduplication research, \$25,000, Sole PI.
Jun 2013–2017	CSR: Medium: Collaborative Research: Workload-Aware Storage Architectures for Optimal Performance and Energy Efficiency. NSF. \$513,900 (SBU share, total budget \$1,000,000), 3 years. Lead-PI with one other Stony Brook Co-PI, and two more institutions (Harvard U. and Harvey Mudd College).
Jan 2013–2017	BIGDATA: Small: DCM: Collaborative Research: An efficient, versatile, scalable, and portable storage system for scientific data containers. NSF. \$444,267 (SBU share, total budget \$746,290), 3 years. Lead-PI with two other Stony Brook Co-PIs, and two more institutions (Brandeis U. and Louisiana State U.).
Sep 2013–2017	<i>CRI-CI-ADDO-EN: National File System Trace Repository.</i> NSF. \$37,018 (SBU share, total budget \$167,817), 3 years. Co-PI with lead institution Harvey Mudd College.
2013	Western Digital Research award. <i>Shingled Magnetic Recording Disks Benchmarking</i> , \$50,000, Single PI.
Sep 2012 – 2016	NFS4Sec: An Extensible Security Layer for Network Storage. NSF. \$486,783, 3 years. Lead-PI with one other Co-PI.
2012-2013	Server-Class Performance vs. Energy Optimizations. Government of Israel (GoI), Mission to the USA. \$47,152, 1 year. Lead PI with one other Co-PI.
2011	NetApp Research award. Dedup Workload Modeling, Synthetic Datasets, and Scalable Benchmarking, \$40,000, Single PI.
2010	NetApp Research award. A Study of Network Storage Benefits using FLASH Hardware with Indexing Workloads, \$40,000, Single PI.
Nov 2010 – 2016	Long Island Smart Energy Corridor. Department of Energy (DOE), LIPA, and New York State. Collaboration between Stony Brook University, SUNY Farmingdale, and LIPA. \$2,822,638, Co-PI.
Sep 2009 – Aug 2013	Collaborative Research: Performance- and Energy-Aware HEC Storage Stacks. NSF. \$652,000, 3 years. Co-PI with Geoff Kuenning (Harvey Mudd College)
Sep 2009 – Aug 2013	Collaborative Research: Secure Provenance in High End Computing Systems. NSF. \$564,972, 3 years. Co-PI with Radu Sion. Collaborative project with Patrick McDaniel (Penn State U.) and Marianne Winslett (UIUC).
Apr 2009 – Nov 2012	Survivable Software. U.S. Air Force Office of Scientific Research (AFOSR). \$881,691, 39 months. Co-PI with Scott A. Smolka, Radu Grosu, Scott D. Stoller, and Klaus Havelund (NASA JPL).
Feb 2010	Student Travel Support for the First USENIX Workshop on Sustainable Information Technology (SustainIT 2010). NSF. \$10,000, 1 year. Lead PI.
2009	Network Appliance Research award. <i>Power use in Storage Servers.</i> \$30,000 Single PI.



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