

SHIR LANDAU FEIBISH

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1 Academic Positions

(10/2020 - Present) **Senior Lecturer, Open University of Israel**

(2017 - 2020) **Postdoctoral Researcher, Princeton University**

Advisor: Prof. Jennifer Rexford

2 Higher Education

(2011 - 2017) **Ph.D., Computer Science** Tel Aviv University. Research topic: Heavy Hitters Extensions for Advanced Traffic Anomalies Detection Advisor: Prof. Yehuda Afek. (Ph.D. approved by the Senate of Tel Aviv University on February 22, 2018)

(2007 - 2010) **M.Sc., Computer Science (cum laude)** Bar-Ilan University. Thesis: Generalized Substring Compression. Advisor: Prof. Moshe Lewenstein.

(2002 - 2005) **B.Sc., Computer Science** Tel Aviv University.

3 Industrial Employment History

- (2007 - 2012) **Websense Inc.**
 - (2011-2012) Program leader - in charge of overseeing the scheduling and coordination of projects in the area of Data Leak Prevention
 - (2007 - 2010) Software Engineer in the team working on developing technologies for Data Leak Prevention
- (2006 - 2007) **Software Engineer at NICE Systems Ltd.** in a team working on telephony call-centers technology
- (1998-2001) **Army Service - Israeli Defense Forces** I served in the Intelligence corps and as a crew commander in the basic officers training course. Rank: Lieutenant

4 Invited Talks and Workshops

- University of Pisa - Algorithmic Seminar (2006)
- University of Palermo - Annual Project Meeting Italy-Israel Firb Project (2008)
- Fourth International Stringology Research Workshop, Bar Ilan University (2009)
- NYU-Poly - Network Security Group seminar(2013)
- The 8th Workshop on Compression, Text, and Algorithms (WCTA 2013)
- Israeli Networking Day (2013)
- The Stringology Research Workshop, Haifa University (2015)
- The ICRC - The Blavatnik Interdisciplinary Cyber Research Centre (2016)

- Israeli Networking Day (2017)
- Microsoft Research Network Group, Seattle, Washington (2018)
- MIT - Networking group seminar (2018)
- Harvard University - Networking group seminar (2018)
- NYU - Networking group seminar (2018)
- NSF Workshop on Programmable Networks, NYU (2018)
- Ben-Gurion University - Computer Science Colloquium (2018)
- Interdisciplinary Center Herzliya - Computer Science Colloquium (2018)
- Tel Aviv University - Computer Science Colloquium (2018)
- Hebrew University - Computer Science Colloquium (2018)
- Technion - Electrical Engineering Colloquium (2018)
- NSF Workshop on Network Measurement, Princeton (2019)
- Cornell University - Networking and systems group seminar (2019)
- University of Washington - Networking and systems group seminar (2019)

5 Program Committee Member

- ESORICS 2021
- IEEE ICCCN - SDN/NFV track 2020, 2021
- EuroP4 2020
- SIGCOMM Posters/Demos 2020
- SIGCOMM Artifact Evaluation 2020
- OPODIS 2020

6 External reviewer

- Journals: Theoretical Computer Science; Transactions on Networking;
- Conferences: IEEE Conference on Communications and Network Security (CNS) 2016; Annual IEEE International Conference on Computer Communications (IEEE INFOCOM) 2012, 2013, 2014, 2016, 2017, 2019, 2021; International Conference on Distributed Computing and Networking (ICDCN) 2013; Symposium on String Processing and Information Retrieval (SPIRE) 2009, 2010; International Workshop on Combinatorial Algorithms (IWOCA) 2007;

7 Teaching - Tel Aviv University

- **Instructor**

- (2013-2015) Software Project Course

- **Teaching Assistant**

- (2014-2017) Workshop in Programming smartphones for the benefit of the community
- (2012-2016) Workshop in Google Technologies for Cloud and Web
- (2015) Workshop in Automatic program generation for detecting vulnerabilities and errors in compilers and interpreters
- (2013-2014) Workshop in Static Analysis Tools for Detecting Security Vulnerabilities
- (2013-2014) Programming in C

8 Prizes and Scholarships

- N2Women: Rising Stars in Networking and Communications 2020
- The Eric and Wendy Schmidt Postdoctoral Award for Women in Mathematical and Computing Sciences, (2017-2019).
- Google EMEA Anita Borg Memorial Scholarship, (2015).
- Second place winner in the Broadcom Foundation University Research Competition, (2014).
- Scholarship - Research in the field of Cyber Security, Ministry of Science and Technology, Israel, (2013-2016).
- Best Paper Award, CPM, (2006).
- First Place winner in the Outstanding Projects Competition, The Blavatnik School of Computer Science, Tel Aviv University, (2004).

9 List of Publications

Journal Papers:

1. Haim Kaplan, Shir Landau and Elad Verbin. A Simpler Analysis of Burrows-Wheeler Based Compression, *Theoretical Computer Science*, 387(3):220–235 (2007).
2. Hermelin Danny, Gad M. Landau, Shir Landau and Oren Weimann. Unified Compression-Based Acceleration of Edit-Distance Computation, *Algorithmica*, 65(2): 339-353 (2013).
3. Orgad Keller, Tsvi Kopelowitz, Shir Landau and Moshe Lewenstein. Generalized Substring Compression, *Theoretical Computer Science*, 525: 42–54 (2014).
4. Yehuda Afek, Anat Bremler-Barr, Shir Landau Feibish, and Liron Schiff. Detecting Heavy Flows in the SDN Match and Action Model, *Computer Networks*, 136: 1 – 12 (2018).
5. Yehuda Afek, Anat Bremler-Barr, and Shir Landau Feibish. Zero-day signature extraction for high volume attacks, *IEEE/ACM Transactions on Networking* 27(2): 691 – 706 (2019).

Conference Publications:

1. Haim Kaplan, Shir Landau and Elad Verbin. A Simpler Analysis of Burrows-Wheeler Based Compression, *Proc. 17th Combinatorial Pattern Matching Conference (CPM)*, **Best Paper Award Winner**, Lecture Notes in Computer Science, 4009, Springer-Verlag, 282–293 (2006).
2. Orgad Keller, Tsvi Kopelowitz, Shir Landau and Moshe Lewenstein. Generalized Substring Compression, *Proc. 20th Combinatorial Pattern Matching Conference (CPM)*, Lecture Notes in Computer Science, 5577, Springer-Verlag, 26–38 (2009).
3. Hermelin Danny, Gad M. Landau, Shir Landau and Oren Weimann. A Unified Algorithm for Accelerating Edit-Distance Computation via Text-Compression, *Proc. 26th International Symposium on Theoretical Aspects of Computer Science (STACS)*, 529–540 (2009).
4. Yehuda Afek, Anat Bremler-Barr and Shir Landau Feibish. Automated Signature Extraction for High Volume Attacks, *ACM/IEEE Symposium on Architectures for Networking and Communications Systems (ANCS)*, 147–156 (2013).
5. Yehuda Afek, Yehonatan Ginzberg, Shir Landau Feibish and Moshe Sulamy. Distributed Computing Building-Blocks for Rational Agents, *ACM Symposium on Principles of Distributed Computing (PODC)*, 406–415 (2014).
6. Yehuda Afek, Anat Bremler-Barr, Edith Cohen, Shir Landau Feibish and Michal Shagam. Mitigating DNS random subdomain DDoS attacks by distinct heavy hitters sketches. *The 5th ACM/IEEE Workshop on Hot Topics in Web Systems and Technologies (HotWeb)*, 8:1–8:6 (2017).
7. Xiaoqi Chen, Shir Landau Feibish, Yaron Koral, Jennifer Rexford, and Ori Rottenstreich. Catching the Microburst Culprits with Snappy, *SelfDN@SIGCOMM*, 22–28 (2018).
8. Ran Ben-Basat, Gil Einziger, Shir Landau Feibish, Jalil Moraney, and Danny Raz. Network-Wide Routing-Oblivious Heavy Hitters. *ACM/IEEE Symposium on Architectures for Networking and Communications Systems (ANCS)*, 66–73 (2018).
9. Xiaoqi Chen, Shir Landau Feibish, Yaron Koral, Steven A Monetti, Jennifer Rexford, Ori Rottenstreich, and Tzuyu-Yi Wang. Fine-grained queue measurement in the data plane. *CoNEXT*, 15–29 (2019).
10. Mengying Pan, Robert MacDavid, Shir Landau Feibish, and Jennifer Rexford. Memory-Efficient Membership Encoding in Switches. *Symposium on SDN Research (SOSR)*, 110–116 (2020).
11. Ran Ben Basat, Xiaoqi Chen, Gil Einziger, Shir Landau Feibish, Danny Raz, and Minlan Yu. AROMA: Routing Oblivious Measurement Analytics. *IFIP Networking*, 449 – 457 (2020).
12. Xiaoqi Chen, Shir Landau Feibish, Mark Braverman, and Jennifer Rexford. BeauCoup: Answering Many Network Traffic Queries, One Memory Update at a Time. *SIGCOMM*, 226 – 239 (2020).
13. Rob Harrison, Shir Landau Feibish, Ross Teixeira, Arpit Gupta, S. Muthukrishnan, and Jennifer Rexford. Carpe Elephants: Seize the Global Heavy Hitters. *SPIN@SIGCOMM*, 15–21 (2020).

14. Mary Hogan, Shir Landau Feibish, Rob Harrison, Mina Tahmasbi Arashloo, Jennifer Rexford, and David Walker. Elastic Switch Programming with P4All. HotNets, 168 – 174 (2020).

Posters:

1. Yehuda Afek, Anat Bremler-Barr, Shir Landau Feibish and Liron Schiff. Sampling and Large Flow Detection in SDN, SIGCOMM, 345–346 (2015).