Dahlia Malkhi, Ph.D.

Lead Maintainer, Libra Association and Lead Researcher, Novi Financial
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Biographical sketch

I am interested in applied and foundational research since the early nineties in broad aspects of reliability and security in distributed systems, working on robust large-scale distributed systems infrastructure.

For over two decades, I participated in driving innovation in tech, notably: co-inventor of HotStuff, co-founder and technical lead of VMware blockchain, co-inventor of Flexible Paxos, the technology behind Log Device, creator and tech lead of CorfuDB, a database-less database driving VMware's NSX-T distributed control plane, and co-inventor of the FairPlay project.

I joined Facebook/Nove (previously called Calibra) in June 2019 as a Lead Researcher. Previously, I was a founding member and principal researcher of VMware Research. I spent ten years at Microsoft Research Silicon Valley from 2004 until the shutting of the lab in November 2014. Prior to joining Microsoft, I was an Associate Professor of Computer Science at the Hebrew University of Jerusalem (1999-2007), left for a brief sabbatical, but was bitten by the Silicon Valley bug and remained there.

Notable milestones: ACM fellow, 2011. IBM Faculty award recipient 2003 and 2004. German-Israeli Foundation (G.I.F.) Young Scientist career award, 2002. Simons Institute advisory board member 2019-2021 and co-chair as of 2020. Associate editor of IEEE Transactions on Dependable and Secure Computing (TDSC) 2014-2016. Associate editor of the Distributed Computing Journal since 2002. Usenix ATC 2019 program chair. LADIS 2012 program chair. Locality 2007 program chair. PODC 2006 program chair. Locality 2005 program chair. DISC 2002 program chair. Supervised 6 PhD students and 10 MSc students, authored and co-authored over 100 publications in top journals and selective peer-reviewed conferences.

Professional Experience

Lead Researcher, Novi Financial   (June 2019-present)
　　　Impacting the blockchain technology.

Principal Researcher and Founding Member, VMware Research Group   (December 2014-2019)
　　　Founding member of a new systems research group at the office of the CTO of VMware.

Principal Researcher, Microsoft Research, Silicon-Valley   (August 2004-November 2014)
    Started assignment as researcher, promoted to senior researcher in August 2005, promoted
    to principal researcher in August 2006, and promoted to partner level in January 2011.

Professor of Computer Science, Hebrew University of Jerusalem   (1999 - 2007)
    Started assignment as a *senior lecturer*, received tenure and promoted to an *associate professor*
    position on October 2002.

Senior Researcher, AT&T Labs-Research, New Jersey   (1995 - 1999)
    Secure Systems Research group. Started assignment as a Senior Technical Staff Member and
    promoted to Principal Technical Staff Member in 1997.

Research Associate, Principles of Parallel Processing group   (1988 - 1990)
    IBM T. J. Watson Research Center, NY.

Noteworthy Roles

- Member of the Simons Institute Advisory Board 2019-2021 (co-chair as of 2020).

- Program committee co-chair, Usenix ATC 2019.

- Associate editor, IEEE Transactions on Dependable and Secure Computing, 2014-2016.

- Associate editor, Distributed Computing (Springer-Verlag), 2002-present.

- Program committee chair 2006, member of the steering committee 2006-2008, ACM Symposium on Principles of Distributed Computing (PODC).

- Award committee chair 2006, member 2007, 2011, 2012, ACM PODC Edsger W. Dijkstra Prize in Distributed Computing.

- Program co-chair, Workshop on Locality Preserving Distributed Computing Methods (LOCALITY) 2005 and 2007.

- Program committee chair 2002, member of the steering committee, 2002-2004, International Symposium on DIStributed Computing (DISC).

- Program committee co-chair, Workshop on Large Scale Distributed Systems and Middleware (LADIS) 2012.

- PC member of many conferences, too many to list.

Paper awards

- Best paper at OPODIS 2019, *FairLedger: A Fair Blockchain Protocol for Financial Institutions,* with my (then) summer inters Alexander Spiegelman, jointly with Kfir Lev-Ari and Idit Keidar.

- Best paper at Usenix ATC 2016, *Replex: A Scalable, Highly Available Multi-Index Store,* with my (then) intern Amy Tai, jointly with Michael Wei, Michael Freedman, and Ittai Abraham.

- Best paper at IEEE IPDPS, 2006, *On Collaborative Content Distribution Using Multi-Message Gossip*, with my (then) PhD student Coby Fernandess.

- Best paper at Usenix Security, 2004, *Fairplay – A Secure Two-Party Computation System*, with my (then) PhD student Yaron Sella, jointly with Noam Nisan, Benny Pinkas.

- Best student paper at the International Symposium on Distributed Computing (DISC 2003); with my PhD student Ittai Abraham.

Keynotes

I do my best to maintain keynote links at `https://dahliamalkhi.github.io/talks/`.

Advised Students

PhD students:

Grisha Chockler, graduated 2003;
Yaron Sella, graduated 2004;
Elan Pavlov, graduated 2005;

Ittai Abraham, graduated 2008;
Danny Bickson, graduated 2007;
Yaacov Fernandess, graduated 2010.

MSc students:

Yaacov Fernandess, graduated 2002 ;
Ofer Margoninsky, graduated 2002 ;
Keren Horowitz, graduated 2002 ;
Danny Bickson, graduated 2003 ;
David Rabinowitz, graduated 2004;
Barak Merimovich, graduated 2004;
Elliot Jaffe, graduated 2005;
Tzachy Reinman, graduated 2006;

Oren Dobzinksy started 2001;
Nir Sonenschein, started 2003.

PhD thesis-committee external member:

Michael Wei, UCSD;
Leandre Jehl, Norway;
Richar Ekwall, Swiss Federal Institute of Technology (EPFL), Switzerland;
Adnan Agabria, The Technion, Israel;
David Breitgand, The Hebrew University of Jerusalem, Israel;
Xavier Defago, Swiss Federal Institute of Technology (EPFL), Switzerland;

Carlo Marcetti, University of Rome "La Sapienza", Italy;
Ronen Kat, University of Beer-Sheva, Israel;
Konstantin Shagin, The Technion, Israel;
Roie Melamed, The Technion, Israel;
Nuno Santos, EPFL, Switzerland.

Publications

I co-authored over 150 publications in top conference and journal venues. I do my best to maintain my recent publications under `https://dahliamalkhi.github.io/publications/`; dblp does a pretty decent job of keeping track of all publications.