

# NIV DAYAN

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## EDUCATION & ACADEMIC EMPLOYMENT

<i>Harvard</i>	<i>2015–current</i>	Postdoc in Computer Science Goal: Identifying the best possible performance trade-offs for log-structured key-value stores. Advisor: Stratos Idreos
<i>IT University of Copenhagen</i>	<i>2012–2015</i>	PhD in Computer Science Thesis: Modelling and Managing SSD Write-Amplification. Advisor: Philippe Bonnet
<i>IT University of Copenhagen</i>	<i>2010–2012</i>	MSc in Computer Science Thesis: Predictable I/Os and Efficient B-Tree Updates on Flash-Based Solid State Drives. Advisor: Philippe Bonnet
<i>University of Dundee</i>	<i>2007–2010</i>	BSc in Computer Science and Economics

## AWARDS

<i>SIGMOD '17</i>	<b>Best of ACM SIGMOD.</b> Our paper on <i>Monkey: Optimal Navigable Key-Value Store</i> was selected as one of the four best papers of the ACM SIGMOD International Conference on Management of Data.
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## SELECTED PUBLICATIONS ON KEY-VALUE STORES

<i>SIGMOD '19</i>	<i>The Log-Structured Merge-Bush &amp; the Wacky Continuum.</i> <b>Niv Dayan</b> , Stratos Idreos.
<i>CIDR '19</i>	<i>Design Continuums and the Path Toward Self-Designing Key-Value Stores that Know and Learn.</i> Stratos Idreos, <b>Niv Dayan</b> , Wilson Qin, Mali Akmanalp, Sophie Hilgard, Andrew Ross, James Lennon, Varun Jain, Harshita Gupta, David Li, Zichen Zhu.
<i>SIGMOD '18</i>	<i>Dostoevsky: Better Space-Time Trade-Offs for LSM-Tree Based Key-Value Stores via Adaptive Removal of Superfluous Merging.</i> <b>Niv Dayan</b> , Stratos Idreos.
<i>TODS '18</i>	<i>Optimal Bloom Filters and Adaptive Merging for LSM-Trees.</i> <b>Niv Dayan</b> , Manos Athanassoulis, Stratos Idreos.
<i>IEEE Data Engineering Bulletin '18</i>	<i>The Periodic Table of Data Structures.</i> Stratos Idreos, Kostas Zoumpatianos, Manos Athanassoulis, <b>Niv Dayan</b> , Brian Hentschel, Michael S. Kester, Demi Guo, Lukas Maas, Wilson Qin, Abdul Wasay, Yiyu Sun.
<i>SIGMOD '17</i>	<i>Monkey: Optimal Navigable Key-Value Store.</i> <b>Niv Dayan</b> , Manos Athanassoulis, Stratos Idreos.

## SOFTWARE

*2012 - 2015*                      EagleTree - SSD Simulator  
Simulation framework for analyzing the behavior of SSDs, available at  
<https://github.com/ClydeProjects/EagleTree>.

## RECENT TALKS AND LECTURES

2019	MSR Redmond · University of Seattle
2018	NetApp · Facebook · Vertica · University of Chicago, · University of Wisconsin
2017	NetApp · Facebook · Vertica · University of Dresden

## TEACHING

Harvard '18	Teaching assistant in AC297, a MSc Course on data science.
Harvard '18	Teaching assistant in CS165, a BSc Course on data systems.
Harvard '17	Teaching assistant in AC297, a MSc Course on data science.
Harvard '17	Teaching assistant in CS165, a BSc Course on data systems.
Harvard '16	Teaching assistant in AC297, a MSc Course on data science.
IT Univ. of Copenhagen '14	Teaching assistant in a MSc course on database tuning.
Univ. of Dundee '09	Teaching assistant in a BSc course on data structures.

## WORK EXPERIENCE

Podio '12	Data analyst.
Sunstone Capital '12	Data analyst.
Netmester '11-'12	Back-end web-developer.
Academia Sinica '10	Research Intern.
Calico Jack '09	Web development intern.

## OTHER INFORMATION

Interests	guitar · science fiction · nonfiction · Brazilian Jiu Jitsu
Languages	English · Hebrew

November 18, 2019