

# Yonatan Naamad

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PERSONAL INFORMATION      *Location:* Sunnyvale, CA      *WWW:* [www.yonatan.us](http://www.yonatan.us)  
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EDUCATION      **Princeton University**, Princeton, New Jersey, USA  
Ph.D. Computer Science (Graph Algorithms), 2017  
– Advisor: Moses Charikar  
– Thesis title: *Hardness from Densest Subgraph Conjectures*  
– 2 years spent as visiting student at Stanford University  
M.A. Computer Science (Theory), 2013  
– Advisor: Moses Charikar  
**Rensselaer Polytechnic Institute**, Troy, New York, USA  
M.S. Applied Mathematics, 2011  
– Advisor: Peter Kramer  
B.S. Computer Science and Mathematics, 2011  
– Summa Cum Laude

APPOINTMENTS      **Amazon.com, Inc.**  
**Intern → Applied Scientist → Senior Applied Scientist**  
• AWS Analytics      **February 2021 - Present**  
• Health & Wellness      **June 2018 - February 2021**  
• Core Machine Learning / AWS AI Lab      **June 2017 - June 2018**  
• Core Machine Learning      **Summer 2016**

**Princeton University**  
**Assistant Instructor**  
• Networks, Economics, and Computation      **Spring 2013**  
• Networks, Economics, and Computation      **Fall 2012**

**Rensselaer Polytechnic Institute**  
**Teaching Assistant**  
• *Graduate TA* - Calculus II      **Spring 2011**  
• *Graduate TA* - Introduction to Discrete Structures      **Fall 2010**  
• *Graduate TA* - Multivariable Calculus & Matrix Algebra      **Spring 2010**  
• *Undergraduate TA* - Introduction to Logic      **Fall 2009**  
• *Undergraduate TA* - Data Structures and Algorithms      **Spring 2009**

**World Bank**  
**Temporary Employee**  
• Short Term Temp - Databases / Imputation      **Summer 2009**

**EMC Corporation** (now Dell EMC)  
**Summer Intern**  
• Technical Competitive Analysis Group Intern      **Summer 2007**  
• Performance Group Intern      **Summer 2005**

SERVICE	<p><b>Better Science Campaign 501(c)(3)</b></p> <p><b>Board Member</b></p> <ul style="list-style-type: none"> <li>• Strategic Initiatives Director <span style="float: right;"><b>January 2025 - Present</b></span></li> </ul>
RESEARCH	<p>T. Wagner, Y. Naamad, N. Mishra “Fast Private Kernel Density Estimation via Locality Sensitive Quantization” <i>Proceedings of the 40th International Conference on Machine Learning (ICML) 2023</i>. Oral presentation.</p> <p>S. Nagesh, N. Mishra, Y. Naamad, J. Rehg, M. Shah, A. Wagner “Explaining a machine learning decision to physicians via counterfactuals” <i>Proceedings of the Conference on Health, Inference, and Learning (CHIL) 2023</i>.</p> <p>P. Parchas, Y. Naamad, P. Van Bouwel, C. Faloutsos, M. Petropoulos “Fast and Effective Distribution-Key Recommendation for Amazon Redshift” <i>Proceedings of the 46th International Conference on Very Large Data Bases (VLDB), 2020</i>.</p> <p>D. Eswaran, C. Faloutsos, N. Mishra, Y. Naamad “Intervention-Aware Early Warning” <i>Proceedings of the 19th Industrial Conference on Data Mining (ICDM) 2019</i></p> <p>M. Charikar, Y. Naamad, J. Rexford, X. Zou “Multi-Commodity Flow with In-Network Processing” <i>Proceedings of the 4th International Symposium on Algorithmic Aspects of Cloud Computing (ALGO CLOUD) 2018</i></p> <p>M. Charikar, Y. Naamad, A. Wirth “On Approximating Target Set Selection” <i>Proceedings of the 19th International Workshop on Approximation Algorithms for Combinatorial Problems (APPROX) 2016</i></p> <p>M. Chakraborty, S. Das, A. Lavoie, M. Magdon-Ismael, Y. Naamad “Instructor Rating Markets” <i>Proceedings of the Twenty-Seventh AAAI Conference on Artificial Intelligence (AAAI) 2013</i> Abstract appeared in the <i>Proceedings of the Second Conference in Auctions, Market Mechanisms, and Their Applications (AMMA) 2011</i></p> <p>E. Anshelevich, S. Das, Y. Naamad “Anarchy, Stability, and Utopia: Creating Better Matchings” <i>Autonomous Agents and Multi-Agent Systems (AAMAS) 2013</i> Prior conference version appeared in <i>Proceedings of the 2nd International Symposium on Algorithmic Game Theory (SAGT) 2009</i></p> <p>M. Charikar, Y. Naamad, J. Wu “On Finding Dense Common Subgraphs” <i>Manuscript</i></p> <p>M. Charikar, Y. Naamad, A. Wirth “On DkS-hardness for MinRep-hard Problems” <i>Manuscript</i></p>
PATENTS	<p>S. Kasiviswanathan, N. Mishra, Y. Naamad “System and Method for Generating Causal Insights in Health and Wellness Wearables”, U.S. Patent #11,853,912. December 26, 2023</p> <p>Y. Naamad, S. Kasiviswanathan, N. Mishra, M. Monemizadeh, L. Moos, J. Tokle “Systems, methods, and apparatus for hotspot detection”, U.S. Patent #11,797,572. October 24, 2023</p> <p>Y. Naamad, N. Mishra “Question Answering System”, U.S. Patent #10,713,289. July 14, 2020</p>
AWARDS	<p><b>COMAP Mathematical Contest in Modeling</b></p> <ul style="list-style-type: none"> <li>• Outstanding Winner for 2011 Problem B (Repeater Coordination)</li> <li>• Outstanding Winner (SIAM Prize) for 2010 Problem B (Criminology)</li> </ul> <p><b>Princeton University</b></p> <ul style="list-style-type: none"> <li>• Computer Science Graduate Teaching Award</li> </ul> <p><b>Rensselaer Polytechnic Institute</b></p> <ul style="list-style-type: none"> <li>• Paul A. McGloin Prize (given to one outstanding senior in CS)</li> <li>• Founders Award of Excellence (given to 1% of undergraduates)</li> <li>• RPI-UPE Programming Competition - Second Place</li> <li>• Distinction on RPI Mathematics PhD Preliminary Exam (top scorer)</li> </ul>

SKILLS

Development: **C**, C++, C#, Go, Haskell, **Java**, **Javascript**, Lua, Matlab, MIPS,  
(**bold** preferred) **PHP**, Prolog, **Python**, Scheme, SQL, VB6/.Net

Tools: Arduino, Git, Keras, L<sup>A</sup>T<sub>E</sub>X, PyTorch, Unity

Languages: English (native), Hebrew (native), Spanish (elementary)