
CONTACT INFORMATION	3650 McClintock Ave, Los Angeles, CA 90089, United States	(323) 979-1693 sshaham@usc.edu
RESEARCH INTEREST	Privacy, Algorithmic Fairness, Machine Learning, Information Theory	
EDUCATION	University of Southern California, USA Ph.D. in Computer Science	2020 - Present
	University of Sydney, Australia Master of Philosophy in Information Technology	2017 - 2019
	<ul style="list-style-type: none">Thesis Title: Location Privacy in the Era of Big Data and Machine Learning	
	University of Warwick, UK Master of Science in Engineering Business Management	2014 - 2015
	<ul style="list-style-type: none">Thesis Title: User Acceptance of Location-Based Mobile Applications	
	University of Manchester, UK Bachelor of Engineering in Electrical and Electronics Engineering	2011 - 2014
	<ul style="list-style-type: none">First Class HonoursThesis Title: Rescaling Digital Human Phantoms	
HONORS & AWARDS	<ul style="list-style-type: none">University of Southern California Nominee for Apple FellowshipUniversity of Southern California Graduate FellowshipUniversity of Sydney Postgraduate Award (APA)University of Sydney Norman-I PrizeUniversity of Sydney International Scholarship (tuition waiver plus \$ 26,000 per annum)University of Warwick Tuition WaiverSilver Medal in the National Mathematics Olympiad, IranBronze Medal in the National Informatics Olympiad, IranMembership in National Elites Foundation, Iran	2021 2020 2019 2018 2017 2014 2010 2009 2009
PROFESSIONAL EXPERIENCE	Facebook (Meta), United States <i>Machine Learning Researcher</i> Ads Fairness Team	Summer 2022
	King's Own Institute, Australia <i>Lecturer</i> Units Instructed:	March 2020 - July 2020
	<ul style="list-style-type: none">Discrete MathematicsIntroduction to Computer ScienceDatabase Design and Development	

University of Technology Sydney, Australia

Nov 2019 - Jan 2020

Researcher

Worked on Clustering and Optimization on Edge Computing Mobile Networks.
Project: Workload Optimization on Edge Computing Mobile Networks.

University of Sydney, Australia

March 2017 - Dec. 2020

Teaching Assistant

Units:

- Internet of Things for Critical Infrastructure
- Signals and Systems
- Introduction to Computer Systems
- Entrepreneurship for Engineers
- Data Communications and the Internet

University of Sydney Business School, Australia

Sep 2018 - Feb 2019

Python Developer

Designed and implemented several Python projects with Raspberry Pi published on the website of the business school as guidelines for postgraduate students.

Supervisor: Dr. Mahyar Shirvanimoghaddam

InDebted, Australia

May 2018 - Aug 2018

Data Scientist

- Implemented Supervised Machine Learning models, such as Logistic Regression, Random Forest, and Decision Tree.
- Implemented Unsupervised Machine Learning algorithms such as K-means.
- Organized Relational Databases using SQL.

HBD Services, Australia

Summer 2015

Computer Network Administrator

University of Manchester, UK

Summer 2013

Research Assistant

Studied Multi-frequency induction systems (used in brain tomography).

University of Manchester, UK

Summer 2012

Research Assistant

Worked on an innovative approach for controlling stepper motors via Bluetooth.

COMPUTER
SKILLS

- Programming Languages: Python, PyTorch, SQL, C/C++, Matlab
- Libraries: Pandas, Numpy, Scikit Learn, Matplotlib, and Seaborn
- Math Skills: Linear, Non-linear, and Convex Optimization
- Visualization: Tableau and LATEX
- Cisco Certified Network Professional (CCNP) in Routing and Switching

CITATION
RECORD

Link to my Google Scholar Profile:

<https://scholar.google.com/citations?user=WnWN4NkAAAAJ&hl=en&oi=ao>

JOURNAL
PUBLICATIONS

1. **Shaham, S.**, Dang, S., Wen, M., Mumtaz, S., Menon, V.G. and Li, C., "Enabling Cooperative Relay Selection by Transfer Learning for the Industrial Internet of Things" in IEEE Transactions on Cognitive Communications and Networking, Jan 2022.
2. Liu B, Ding M, **Shaham, S.**, Rahayu W, Farokhi F, Lin Z, "When Machine Learning Meets Privacy: A Survey and Outlook" in ACM Computing Surveys, March 2021.
3. **Shaham, S.**, Ding, M., Liu, B., Dang, S., Lin, Z. and Li, J., "Privacy preservation in location-based services: a novel metric and attack model" in IEEE Transactions on Mobile Computing (TMC), May 2020.
4. **Shaham, S.**, Ding, M., Liu, B., Dang, S., Lin, Z. and Li, J., "Privacy Preserving Location Data Publishing: A Machine Learning Approach" in IEEE Trans. on Knowledge and Data Engineering (TKDE), January 2020.
5. Wang, Z., Dang, S., **Shaham, S.**, Zhang, Z. and Lv, Z., "Basic Research Methodology in Wireless Communications: The First Course for Research-Based Graduate Students" in IEEE Access, vol. 7, pp. 86678-86696, 2019.
6. **Shaham, S.**, Ding, M., Kokshoorn, M., Lin, Z., Dang, S. and Abbas, R., "Fast Channel Estimation and Beam Tracking for Millimeter Wave Vehicular Communications," in IEEE Access, vol. 7, pp. 141104-141118, 2019.

CONFERENCE
PUBLICATIONS

1. **Shaham, S.**, Ghinita, G. and Shahabi, C., "Differentially-Private Publication of Origin-Destination Matrices with Intermediate Stops" in 25th International Conference on Extending Database Technology (EDBT), 2022.
2. **Shaham, S.**, Ghinita, G., Ritesh Ahuja, John Krumm and Shahabi, C., "HTF: Homogeneous Tree Framework for Differentially-Private Release of Location Data" to appear in Proceedings of the 29th ACM SIGSPATIAL international conference on advances in geographic information systems, 2021.
3. **Shaham, S.**, Ghinita, G. and Shahabi, C., "An Efficient and Secure Location-based Alert Protocol using Searchable Encryption and Huffman Codes" in 24th International Conference on Extending Database Technology (EDBT), 2021.
4. **Shaham, S.**, Ghinita, G. and Shahabi, C., "Enhancing the Performance of Spatial Queries on Encrypted Data Through Graph Embedding" in IFIP Annual Conference on Data and Applications Security and Privacy (DBSec), pp. 289-309, Springer, Cham, June 2020.
5. **Shaham, S.**, Kokshoorn, M., Ding, M., Lin, Z. and Shirvanimoghaddam, M., "Extended kalman filter beam tracking for millimeter wave vehicular communications" in IEEE International Conference on Communications Workshops (ICC Workshops), pp. 1-6, June 2020.
6. **Shaham, S.**, Ding, M., Liu, B., Lin, Z. and Li, J., "Machine Learning Aided Anonymization of Spatiotemporal Trajectory Datasets" in IEEE Conference on Computer Communications Workshops (INFOCOM WKSHPS), pp. 1-6, April 2019.
7. **Shaham, S.**, Ding, M., Liu, B., Lin, Z. and Li, J., "Transition-Entropy: A Novel Metric for Privacy Preservation in Location-Based Services" in IEEE Conference on Computer Communications Workshops (INFOCOM WKSHPS), pp. 1-6, April 2019.
8. Zhang, L., Qian, Y., Ding, M., Ma, C., Li, J. and **Shaham, S.**, "Location Privacy Preservation Based on Continuous Queries for Location-Based Services" in IEEE Conference on Computer Communications Workshops (INFOCOM WKSHPS), pp. 1-6, April 2019.

9. **Shaham, S.**, Kokshoorn, M., Lin, Z., Ding, M. and Wu, Y., “RAF: Robust Adaptive Multi-Feedback Channel Estimation for Millimeter Wave MIMO Systems” in IEEE Wireless Communications and Networking Conference (WCNC), pp 1-6, Barcelona, Spain, April 2018.
10. Ma, Z.X., Zhang, **Shaham, S.**, Dang, S., and Hart, J., "Literature review of the communication technology and signal processing methodology based on the smart grid.", In Applied Mechanics and Materials. Trans Tech Publications 2015.

TECHNICAL
REVIEWER

- IEEE Transaction on Wireless Communications
- IEEE Transaction on Communications
- IEEE Transaction on Signal Processing
- IEEE Transactions on Mobile Computing
- IEEE Transactions on Cognitive Communications and Networking
- IEEE Wireless Communications Letters
- IEEE Access
- Conferences: Globecom, WCNC, ICC