ALI KHOSHGOZARAN

Computer Scientist

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EDUCATION

Ph.D. in Computer Science, University of Southern California   **May 2010**

M.S. in Computer Science, George Washington University   **May 2005**

B.Sc. in Computer Engineering, Sharif University of Technology   **June 2003**

EMPLOYMENT

- **Computer Scientist - Quandary Peak Research; Los Angeles, CA   2018-Present**
  - Providing software analysis and expert witness testimony in software-related litigation patent, trade secret, copyright infringement, breach of contract and other matters.
  - Analyzing software intellectual property and patent portfolios for due diligence, brokering negotiations, startup investments, and M&A.
  - Investigating software failures to determine the root cause and help clients understand whether and how the failure could have been avoided.
  - Documenting the architecture of software systems to identify structural similarities and differences among competing products and services and deduce the origin of software designs and code.

- **Advisory Council Member - EnCorps STEM Teachers Prog.; Los Angeles, CA   2018-Present**
  - EnCorps empowers science, technology, engineering and math (STEM) professionals to transform public education by teaching in high needs schools.

- **Senior Technology Advisor - IVOW AI Inc.; Baltimore, MD   2018-Present**
  - IVOW is an Artificial Intelligence and Storytelling startup that helps organizations champion culturally conscious data.

- **Founder & CEO - Tilofy Inc.; Los Angeles, CA   2013-2017**
  - Successfully built and released one of the most disruptive products in the predictive analytics to the market from the ground up.
  - Turned a $20K seed investment into a cash-flow positive technology business worth $9M (raised $2M+ of venture funding.)
  - Personally signed up world's biggest brands as paid clients (Red Bull, Altria, Hershey, Henkel, Unilever, Samsung, Anheuser Busch, etc.)

- Led the design, development and release of Watsup, an award-winning iOS app. Powered by Tilofy's proprietary anomaly-detection technology, Watsup helped users to "Shazam" the real-world by instantly connecting them to what's happening anywhere, anytime.
- Led the creation of innovative technology recognized by [Forbes](): "This mobile technology brings us one step closer to omniscience."
- Five years of hands-on technical execution, leadership, product architecture and strategy
- Designed, architected and led the development of Tilofy's complex technology infrastructure and software stack for its consumer-facing and enterprise products.
- Interviewed 80+ candidates and managed a team of 15 backend/frontend/iOS engineers, business development, product managers & analysts.
- Led data/service integration of Tilofy with Twitter (Gnip), Google (GCE), IBM (Watson), Microsoft (Azure) & Amazon (AWS).
- Performed daily code reviews, design discussions, bug tracking and product development with the engineering team.
- Interfaced directly with heads of innovation, analytics, marketing, consumer insights and the CXO offices of Tilofy clients.
- Technologies used: ElasticSearch/MySql (storage), Ruby/Java (backend/APIs), React/Angular (frontend), AWS/Rackspace/GCE (IaaS), Jenkins/Chef/Salt/Kibana/Github/Log4j (tools), Mixpanel/Flurry/Crashlytics/Cloudflare/Google Analytics (analytics), Scrum (methodology).

- **Guest Lecturer, University of Southern California; Los Angeles, CA   2010-Present**
  - Teaching topics on Technology Entrepreneurship, Database Systems, Object-Oriented Design and Programming, User Interface Design & Data Informatics at graduate/undergraduate courses.

- **Technical Lead, Samsung SmartTV Platform; Irvine, CA   2010-2013**
  - Led technical integration of partners micro-services (Turner, TWC, Verizon) with Syncplus for Samsung's North American release.
  - Led a technology innovation team at Digital Media Solutions Lab, in charge of conceptualizing and planning new product ideas for Samsung SmartTVs 2-5 years out.
  - Developed proof of concept prototypes for Samsung's senior management to identify product commercialization opportunities.
  - Supported Samsung's venture investment arm for technology sensing and due diligence
  - Filed 10 patents with Samsung on proprietary technology and related use cases (3 granted).

- **Program Manager Intern, Microsoft Online Services Division; Redmond, WA   2009**
  - Delivered and owned specs for Bing Maps "event app".
  - Worked directly with external/internal software engineers on design and development of an event app for Bing Maps platform.
  - Responsible for ingestion, indexing and integration of Microsoft partner's events data into Bing Maps data layer.
  - Selected among very few employees to be mentored 1:1 by Microsoft SVPs as potential future Microsoft leaders.
  - Received but declined a full-time offer.

- **Software Developer Intern, Yahoo! Behavioral Targeting; Sunnyvale, CA   2007**
  - Designed and developed various software products for the behavioral targeting QA team
  - Implemented an end-to-end framework for querying, visualizing and analyzing massive user behavioral data.
  - Implemented a web-based interface to simulate user browsing behavior across hundreds of Yahoo! properties.

- Filed a patent with Yahoo! on developed technologies and querying interfaces.
- Received but declined a full-time offer.

- **Research Assistant, University of Southern California; Los Angeles, CA   2005-2010**
  - Member of the research team at the Information Laboratory group within the Computer Science department.
  - Software designer/developer for the GEODEC (geospatial decision-making) project funded by grants from Microsoft, Google, NSF, etc. The goal of the project was to construct an information-rich and realistic 3-dimensional visualization and simulation of a geographical location, rapidly and accurately.
  - Designed and developed a three-layered architecture to import, ingest and analyze large amounts of heterogeneous, multi-modal and real-time spatio-temporal data for real-time querying and visualization purposes.
  - Developed a machine learning activity classification application on Android G1 phones using accelerometer, GPS, camera and other sensor data to understand users' physical activities
  - Designed and developed several location-based services interacting with mobile clients for geospatial decision-making.
  - Conducted research on privacy-preserving approaches to providing location-based services
  - Developed research grant proposals for NSF funding in the areas of geo-spatial information management and location privacy.
  - Designed and developed one of the world's first moving object tracking and querying application using Google Earth featured on [MSNBC](#) and [Google Earth's blog](#).
  - Invented a fundamental space-transformation technique to perform the class of Nearest Neighbor (NN) queries, the core class of queries used in many of the location-based services, without revealing the origin of the query in order to preserve the privacy of this information.
  - A patent granted on the novel space transformation method and techniques invented.

- **Teaching Assistant, University of Southern California, Los Angeles, CA   2005-2006**
  - Mentoring student and designing exam questions for the Programming Systems Design course.
  - Giving guest lectures and leading TA sessions for Database Information Systems course.

- **Research Assistant, The George Washington University, Washington, D.C.   2004-2005**
  - Contributing research towards establishing a framework for Statistical Cryptanalysis, under the supervision of Dr. Poorvi Vora.

- **Lab Instructor, The George Washington University, Washington, D.C.   2004-2005**
  - Designing and instructing lab sections of "Database Management Systems", teaching Oracle, MYSQL, JDBC, SQLPLUS, ODBC, XML etc.

- **Teaching Assistant, The George Washington University, Washington, D.C.   2004**
  - Mentoring students in "Group Software Projects" course to build a web-based application for a real client (including social impact, professional ethics and intellectual property analysis of the project).

LITIGATION CONSULTING

- **Location Based Services, LLC v. Sony Electronics Inc. (DEC 2018)**
  - Jurisdiction: District of Delaware
  - Counsel: Patterson Belknap Webb & Tyler LLP

- Nature of Suit: Patent (IPR, GPS, Location-Based Services)

- **Calendar Research, LLC, v. Michael Hunter Gray, StubHub, Inc., eBay Inc. et al. (JAN 2019)**
- Jurisdiction: Central District of California
- Counsel: Quinn Emanuel Urquhart & Sullivan LLP
- Nature of Suit: Trade Secret (Startups, mobile apps, merger and acquisitions)

- **Certain Information Systems, Components Thereof and Automobiles Containing the Same (Broadcom v. Toyota Motor Co., Panasonic Co. et al.) (JUL 2018)**
- Jurisdiction: United States International Trade Commission
- Counsel: Steptoe & Johnson LLP
- Nature of Suit: Patent (ITC, GPS Technology, Location-Based Services)

- **UCAR Technology (USA) INC. and UCAR INC. V. Yan Li et al. (MAY 2018)**
- Jurisdiction: Northern District of California
- Counsel: Ruyak Cherian LLP
- Nature of Suit: Trade Secret (Machine Learning, Artificial Intelligence, Self-Driving Cars)

- **Capstone Logistics Holdings, Inc., et al., v. Pedro Navarrete et al. (JUN 2018)**
- Jurisdiction: Southern District of New York
- Counsel: Ferber Law, A Professional Corporation
- Nature of Suit: Trade Secret (Mobile and Desktop Applications)

- **Neofonie GMBH v. Artissimo Designs LLC (MAY 2018)**
- Jurisdiction: Central District of California
- Counsel: Emanuel Law
- Nature of Suit: Breach of Contract

- **Seven Networks, LLC v. ZTE (USA) Inc. and ZTE Corporation (JAN 2018)**
- Jurisdiction: Northern District of Texas
- Counsel: Pillsbury Winthrop Shaw Pittman LLP
- Nature of Suit: Patent Infringement

- **Alex Farwell v. Edward J. Herzstock and Revleap Corp. (MAR 2018)**
- Jurisdiction: Superior Court for California, County of Los Angeles
- Counsel: Wolk & Levine LLP
- Nature of Suit: Corporate Civil Suit

- **CYWEE Group LTD. v ZTE Corporation, ZTE (USA), Inc. and ZTE (TX) Inc. (JAN 2018)**
- Jurisdiction: Southern District of California
- Counsel: Pillsbury Winthrop Shaw Pittman LLP
- Nature of Suit: Patent Infringement

- **Hitachi Maxell, LTD. v. ZTE Corp and ZTE USA Inc. (FEB 2018)**
- Jurisdiction: Eastern District of Texas
- Counsel: Pillsbury Winthrop Shaw Pittman LLP
- Nature of Suit: Patent Infringement

- **Cellular Communications Equipment LLC v. HTC America Inc., HTC Corporation, ZTE Corporation, ZTE Solutions, Inc. and ZTE USA, Inc. (FEB 2018)**
- Jurisdiction: Eastern District of Texas
- Counsel: Pillsbury Winthrop Shaw Pittman LLP
- Nature of Suit: Patent Infringement

- **Bryndon Fisher v. The United States of America (FEB 2018)**
- Jurisdiction: United States Court of Federal Claims
- Counsel: Schubert Jonckheer & Kolbe LLP
- Nature of Suit: Class Action

PATENTS

- Middle Partners, Dang Van Tran, Yingnan Zhu, Xing Zheng, Jaffar Khoshgozaran. Samsung Electronics Co. LTD. (Granted).

- Apparatus and Methods for Tracking, Querying, and Visualizing Behavior Targeting Processes, Michael J. Menezes, Jaffar Khoshgozaran. Yahoo!, Inc. (Granted).

- Multi-User Discovery, Dang Van Tran, Yingnan Zhu, Xing Zheng, Jaffar Khoshgozaran. Samsung Electronics Co. LTD. (Granted).

- Blind Evaluation Of Nearest Neighbor Queries Wherein Locations Of Users Are Transformed Into A Transformed Space Using A Plurality Of Keys, Cyrus Shahabi, Jaffar Khoshgozaran, Houtan Shirani-Mehr. University of Southern California. (Granted).

- Crowd Sourcing, Dang Van Tran, Yingnan Zhu, Xing Zheng, Jaffar Khoshgozaran. Samsung Electronics Co. LTD. (Filed).

- Privacy and Trends, Jaffar Khoshgozaran, Dang Van Tran, Xing Zheng, Yingnan Zhu. Samsung Electronics Co. LTD. (Filed).

- Augmented Intelligent Context, Yingnan Zhu, Xing Zheng, Daniel P. Gicklhorn, Michael R. Lovelace, Jaffar Khoshgozaran, Dang Tran. Samsung Electronics Co. LTD. (Filed).

- Context-Aware Media Interaction, Dang Tran, Yingnan Zhu, Michael R. LOVELACE, Xing Zheng, Daniel P. Gicklhorn, Jaffar Khoshgozaran. Samsung Electronics Co. LTD. (Filed).

- Time and Location Based Information Search and Discovery, Alireza Mojtahedi, Ali Khoshgozaran, Amir Raminfar. Tilofy Inc. (Filed).

- Collaborative Decision-Making For Deriving Micro-Recommendations For Offsite Users, Dang Van Tran, Xing Zheng, Jaffar Khoshgozaran, Yingnan Zhu. Samsung Electronics Co. LTD. (Filed).

- Micro-App Dynamic Revenue Sharing, Dang Van Tran, Xing Zheng, Jaffar Khoshgozaran, Yingnan Zhu. Samsung Electronics Co. LTD. (Filed).

- Collaborative Decision-Making For Deriving Micro-Recommendations For Offsite Users, Dang Van Tran, Xing Zheng, Jaffar Khoshgozaran, Yingnan Zhu, Samsung Electronics Co. LTD. (Filed).

MAGAZINE PUBLICATIONS

- Cyrus Shahabi, Farnoush Banaei-Kashani, Ali Khoshgozaran, Luciano Noceraand Songhua Xing, GeoDec: GeoDec: A framework to visualize and query geospatial data for decision-making. IEEE MultiMedia 17(3): 14-23 (2010).

BOOK CHAPTERS

- Ali Khoshgozaran and Cyrus Shahabi, Private Information Retrieval Techniques for Enabling Location Privacy in Location-Based Services, Privacy in Location-based Applications, ISBN: 978-3-642-03510-4, Bettini, C.; Jajodia, S.; Samarati, P.; Wang, X.S. Eds., October 2009, 59-83.

JOURNAL PAPERS

- Ali Khoshgozaran, Houtan Shirani-Mehr and Cyrus Shahabi, Blind evaluation of location based queries using space transformation to preserve location privacy, Geoinformatica Journal, Nov 2012.

- Ali Khoshgozaran, Ali Khodaei, Mehdi Sharifzadeh, Cyrus Shahabi, A Hybrid Aggregation and Compression Technique for Road Network Databases, Knowledge and Information Systems Journal (KAIS) 17(3), 2008.

- Ali Khoshgozaran, Cyrus Shahabi and Houtan Shirani-Mehr, Location Privacy; Going Beyond K-anonymity, Cloaking and Anonymizers, Knowledge and Information Systems Journal (KAIS), 2010.

- Ali Khoshgozaran and Cyrus Shahabi, A taxonomy of approaches to preserve location privacy in location-based services, to appear in International Journal of Computational Science and Engineering.

CONFERENCE PAPERS

- Ali Khoshgozaran and Cyrus Shahabi, Towards Private Navigation of Tree Structured Spatial Indexes, The Third International Conference on Emerging Databases (EDB 2011), Incheon, Korea.

- Ali Khoshgozaran and Cyrus Shahabi, Private Buddy Search: Enabling Private Spatial Queries in Social Networks, Symposium on Social Intelligence and Networking (SIN09). In conjunction

with IEEE International Conference on Social Computing (SocialCom09), Vancouver, Canada, August 2009, 166-173.

- Luciano Nocera, Arjun Rihan, Songhua Xing, Ali Khodaei, Ali Khoshgozaran, Farnoush Banaei Kashani, Cyrus Shahabi: GeoDec: a multi-layered query processing framework for spatio-temporal data. ACM GIS 2009: 546-547.

- Gabriel Ghinita, Panos Kalnis, Ali Khoshgozaran, Cyrus Shahabi and Kian-Lee Tan, Private Queries in Location Based Services: Anonymizers are not Necessary, In Proceedings of ACM SIGMOD Conference 2008, Vancouver, Canada, 121-132.

- Ali Khoshgozaran, Cyrus Shahabi, Blind Evaluation of Nearest Neighbor Queries Using Space Transformation to Preserve Location Privacy, 10th International Symposium on Spatial and Temporal Databases (SSTD), Boston, United States July 2007, 239-257.

- Cyrus Shahabi, Yao-Yi Chiang, Kelvin Chung, Kai-Chen Huang, Jeff Khoshgozaran-Haghighi, Craig Knoblock, Sung Chun Lee, Ulrich Neumann, Ram Nevatia, Arjun Rihan, Snehal Thakkar, Suya You, GeoDec: Enabling Geospatial Decision Making, IEEE International Conference on Multimedia & Expo (ICME), Toronto,Canada, July 2006, 93-96.

WORKSHOP PAPERS

- Ali Khoshgozaran, Enabling Location Privacy; Moving beyond K-anonymity, Cloaking and Anonymizers, ACM SIGMETRICS 2008 Student Thesis Panel, in conjunction with ACM SIGMETRICS'08, June 3-5 2008, Annapolis MD.

- Ali Khoshgozaran, Houtan Shirani-Mehr and Cyrus Shahabi, SPIRAL: A Scalable Private Information Retrieval Approach to Location Privacy, The 2nd International Workshop on Privacy-Aware Location-based Mobile Services (PALMS), In conjunction with the 9th International Conference on Mobile Data Management (MDM'08), April 27 2008, Beijing, China.

- Ali Khoshgozaran, Ali Khodaei, Mehdi Sharifzadeh, Cyrus Shahabi, A Multi-Resolution Compression Scheme for Efficient Window Queries over Road Network Databases, SSTDM 2006, Hong Kong, China, 355-360.

- Cyrus Shahabi and Ali Khoshgozaran, Location Privacy in Geospatial Decision-Making, Invited paper for DNIS 2007, Aizu, Japan, 1-15.

RESEARCH COMMUNITY SERVICE

- Reviewer for the IEEE Transactions on Knowledge and Data Engineering (TKDE)

- Reviewer for International Conference on Very Large Databases (VLDB)

- Reviewer for International Conference on Spatial and Temporal Databases (SSTD)

- Reviewer for IEEE International Conference on Data Engineering (ICDE)

- Reviewer for Special Interest Group on Knowledge Discovery and Data Mining (SIG KDD)

- Reviewer for GeoSensor Networks (GSN) Conference

- Reviewer for International Journal on Advances of Computer Science for Geographic Information Systems (Geoinformatica)

- Reviewer for ACM International Conference on Design of Communication (SIG DOC)

- Reviewer for International Symposium on Web and Wireless Geographical Information Systems (W2GIS)

- Reviewer for International Conference on Mobile Data Management (MDM)

- Reviewer for International Conference on Emerging Databases (EDB)

- Reviewer for ACM Annual Conference on Multimedia Systems

- Reviewer Ubiquitous Data Mining Conference (UDM)

INVITED TALKS/PANELS

- Judge, Demo Day, Object Oriented Design and Programming Course, University of Cal Poly Pomona (2013)

- Keynote Speaker, Iranian American Society of Engineers and Architects, Irvine, CA (2011)

- Panelist, Innovation Forum, Annenberg School of Communication & Journalism, USC (2014)

- Guest Lecturer, Specification and Design of User Interface Software Course, USC (2014)

- Guest Lecturer, Database Systems, USC (2011)

- Guest Lecturer, Data Informatics Professional Practicum, USC (2015)

- Speaker, The Montgomery Summit, Santa Monica, CA (2015)

- Keynote Speaker, Korean Investors & Traders Association Forum, Los Angeles, CA (2016)

- Panelist, Summit in Media & Tech, Hollywood Production Center, Los Angeles, CA (2017)

- Guest Speaker, Shanghai Investor Connect Road Show (2017)

- Guest Speaker, Plug and Play CHTA Disruptive Exhibition (2017)

- Guest Speaker, Integrated Media Services Center Retreat (2017)

PRESS

- [How Artificial Intelligence Is Changing Storytelling](#), Huffington Post.

- [Innovation in Action: Impact Through Storytelling and Partnerships](#), United Nations System Staff College.

- [Perspective 17: A look into the future](#), Prensario International.

- [Tilofy Helps Marketers Spot Trends Before They Arise](#), American Marketing Association.

- ["First automated trend forecasting platform" predicted the Rainbow Bagel](#), Marketing Land.

- [Six Batches – One Mission: Change the Face of Retail Forever](#), PR Newswire.

- [USC engineering students find success in startup lab](#), ABC7.

- [Start-up companies get shot at big break with Launch Festival 2015](#), Fox KTVU.

- [A Day in the Life of the USC Viterbi Startup Garage](#), USC Viterbi.

- [Tech Startups & the LA Economy](#), Vimeo.

- [Announcing the 2014 socalTECH 50: Southern California's Ones to Watch](#), SocalTech.

- [Seven Startups You Probably Haven't Heard Of – But Should](#), Forbes.

- [Tilofy brings the power of location based browsing](#), Digital Journal.

- [Making Sense Of The World Around You Using Location Data](#), SocalTech.

- [Urban Exploration? There's an App for That](#), USC Viterbi.

- [Virtual World Meets the Real World](#), NBC News.

AWARDS AND HONORS

- University Fellowship, The George Washington University, CS Dep. 2003-04.

- Outstanding Leadership Award, University of Southern California, 2005.

- Graduate Research Scholarship, University of Southern California, 2005.

- Outstanding Graduate Student Award, APSIH, 2006.

- Youth Appreciation Award, NIPOC, 2007.

- Yahoo! Ambassador for USC, 2007-2008.

- Over 1000 citations to peer reviewed publications, 2005-2010.

- Winner: #1 Big Data Startup, USC Startup Garage Competition (100+ participants), 2013.

- SocalTech50: Southern California's Top 50 People to Watch in Tech Industry (along with CEOs of Tinder, Snapchat & Whsiper), 2014.

- Winner: #1 Disruptive Startup in Retail (800+ participants), Plug & Play Tech Center, 2016.

- Winner: #1 Disruptive Media Startup, Plug & Play Tech Center, 2017.