Mehrdad Aliasgari

Department of Computer Engineering and Computer Science
California State University Long Beach

Education

University of Notre Dame (2008-2013)
Ph.D in Computer Science and Engineering (2013)
MS in Computer Science and Engineering (2012)

Sharif University of Technology (2003-2008)
B.Sc in Electrical Engineering - Communications

Work Experience

Chair, Department of Computer Engineering and Computer Science, California State University Long Beach (2019-present, USA)

Associate Professor, Department of Computer Engineering and Computer Science, California State University Long Beach (2019-present, USA)

Assistant Professor, Department of Computer Engineering and Computer Science, California State University Long Beach (2013-2019, USA)

Publications

In Journals

W. Zhang, L. Li, V. Cheong, B. Fu, and **M. Aliasgari**, Deep Encoder–Decoder Neural Networks for Retinal Blood Vessels Dense Prediction. International Journal of Computational Intelligence Systems, 14(1), pp.1078-1086. March 2021

V. Balali, S. Fathi, and **M. Aliasgari**, Vector maps mobile application for sustainable eco-driving transportation route selection. Sustainability, 12(14), p.5584. July 2020

N. Miller, and **M. Aliasgari**, Benchmarks for Evaluating Anomaly Based Intrusion Detection Solutions, International Journal of Network Security & Its Applications (IJNSA) Vol. 10, No.5, September 2018

N. Yadav, **M. Aliasgari**, C. Azzara, and F. Keshtkar, Secure Mobile Automation of Ecological Momentary Assessments (EMA) For Structured Querying, EAI Endorsed Transactions on Ambient Systems, Vol. 18, No. 17, March 2018

M. Aliasgari, F. Bayatbabolghani, M. Blanton , Secure Computation of Hidden Markov Models and Secure Floating Point Arithmetic in the Malicious Model, International Journal of Information Security (IJIS), Vol. 16, No. 6, Nov. 2017

M. Aliasgari, G. Chan, M. Mozumdar, IoT-1-Pass-Security: 1(One)-Pass Authenticated Key Agreement Protocol for Energy Constraint IoT Applications, International Journal On Smart Sensing and Intelligent Systems (S2IS), Vol. 9, No. 2, June 2016

N. Yadav, **M. Aliasgari**, and C. Poellabauer, Mobile Healthcare in an Increasingly Connected Developing World, International Journal of Privacy and Health Information Management (IJPHIM), Vol. 4 Issue 2 pp. 76-97, July 2016

M. Mozumdar, **M. Aliasgari**, S. Venkata, S. Renduchintala, Ensuring Authentication and Security using Zero Knowledge Protocol for Wireless Sensor Network Applications, International Journal of Computing and Digital Systems (IJCDS), Vol. 5, Issue 3, April 2016

M. Blanton and **M. Aliasgari**, Analysis of Reusability of Secure Sketches and Fuzzy Extractors, IEEE Transactions on Information Forensics and Security (TIFS), Vol. 8, No. 9, pp. 1433-1445, Sep. 2013

M. Blanton and **M. Aliasgari**, Secure Outsourced Computation of Iris Matching, Journal of Computer Security, Volume 20, Numbers 2-3, Pages: 259-305, 2012

In Conference Proceedings

R. Vishwakarma, R. Monani, A, Rezaei, H. Sayadi, **M. Aliasgari**, and A. Hedayatipour, Attacks on Continuous Chaos Communication and Remedies for Resource Limited Devices. 24th International Symposium on Quality Electronic Design (ISQED) (pp. 1-8). April 2023.

E. Troja, J. Debello, N. Yadav, **M. Aliasgari**, L. M. Truong, and J. Worden, Mitigating Autonomous Vehicle GPS Spoofing Attacks through Scene Text Observations, 56th Hawaii International Conference on System Sciences, (pp. 6706-6715), Jan. 2023

G. Ding, Z. Li, Y. Wu, X. Yang, **M. Aliasgari**, and H. Xu, Towards an Efficient Client Selection System for Federated Learning, 15th International Conference on Cloud Computing-CLOUD, (pp. 13-21), Dec. 2022

H. Sayadi, **M. Aliasgari**, F. Aydin, S. Potluri, A. Aysu, J. Edmonds, and S. Tehranipoor, Towards AI-enabled Hardware Security: Challenges and Opportunities, 28th IEEE International Symposium on On-Line Testing and Robust System Design (IOLTS), Sept. 2022

A. Rezaei, A. Hedayatipour, H. Sayadi, **M. Aliasgari**, and Hai Zhou, Global Attack and Remedy on IC-Specific Logic Encryption, 2022 IEEE International Symposium on Hardware Oriented Security and Trust (HOST), (pp. 145-148), June 2022

E. Troja, L. Truong, N. Yadav, A.C Bukhari, and **M. Aliasgari**, Personalized Outsourced Privacy-Preserving Database Updates for Crowd-Sensed Dynamic Spectrum Access, IEEE 21st Mediterranean Electrotechnical Conference (MELECON) (pp. 1153-1158), June 2022

N. Yadav, L. Truong, E. Troja, and **M. Aliasgari** , Machine Learning Architecture for Signature-Based IoT Intrusion Detection in Smart Energy Grids, IEEE 21st Mediterranean Electrotechnical Conference (MELECON) (pp.671-676), June 2022

M. Aliasgari , B. Englert, and O. Morales-Ponce, Computing the Optimal Longest Queue Length in Torus Networks. International Conference on the Theory and Practice of Natural Computing (pp. 3-14), Dec. 2021

A. Hedayatipour, R. Monani, A. Rezaei, **M. Aliasgari** , and H. Sayadi, A Comprehensive Analysis of Chaos-Based Secure Systems. Silicon Valley Cybersecurity Conference (pp. 90-105), Dec. 2021

Z. He, T. Miari, H.M. Makrani, **M. Aliasgari**, H. Homayoun,and H. Sayadi, When Machine Learning Meets Hardware Cybersecurity: Delving into Accurate Zero-Day Malware Detection. 22nd International Symposium on Quality Electronic Design (ISQED), (pp. 85-90). April 2021

M. Sami, M. Ibarra, A. C. Esparza, S. Al-Jufout, **M. Aliasgari**, and M. Mozumdar, Rapid, Multi-vehicle and Feed-forward Neural Network based Intrusion Detection System for Controller Area Network Bus, 2020 IEEE Green Energy and Smart Systems Conference (IGESSC), pp. 1-6, Dec. 2020

B. Fu, J. Chao, M. Bittner, W. Zhang, and **M. Aliasgari**, Improving Fitness Levels of Individuals with Autism Spectrum Disorder:A Preliminary Evaluation of Real-Time Interactive Heart Rate Visualization to Motivate Engagement in Physical Activity. 17th International Conference on Computers Helping People with Special Needs(ICCHP), (pp. 81-89). Sept. 2020

H. Sayadi, H. Wang, T. Miari, H.M. Makrani, **M. Aliasgari**, S. Rafatirad, and H. Homayoun, Recent advancements in microarchitectural security: Review of machine learning countermeasures. IEEE 63rd International Midwest Symposium on Circuits and Systems (MWSCAS) (pp. 949-952). August 2020

R. Amouhadi, V. Veliz, V. Balali, **M. Aliasgari**, Optimization and Decision Making for Route Selection as an Alternative of Google Maps Considering Sustainability, Computing in Civil Engineering: Smart Cities, Sustainability, and Resilience (pp. 359-366), June 2019

M. Aliasgari , M. Black, N. Yadav, Security Vulnerabilities in Mobile Health Applications, IEEE Conference on Applications, Information & Network Security (AINS2018), Nov. 2018

M. Aliasgari , N. Sabol, and A. Sharma, Sesame: A Secure and Convenient Mobile Solution for Passwords, Conference on Mobile and Secure Services (MobiSecServ'15), Feb. 2015

M. Aliasgari and M. Blanton, Secure Computation of Hidden Markov Models, International Conference on Security and Cryptography (SECRYPT'13), Jul. 2013

M. Blanton, A. Steele, and **M. Aliasgari**, Data-Oblivious Graph Algorithms for Secure Computation and Outsourcing, ACM Symposium on Information, Computer and Communications Security (ASIACCS'13), May 2013 (accept. rate for full papers: 16.2%)

M. Aliasgari, M. Blanton, Y. Zhang, and A. Steele, Secure Computation on Floating Point Numbers, Network and Distributed System Security Symposuim (NDSS'13), Feb. 2013 (accept. rate: 18.8%)

M. Blanton and **M. Aliasgari**, On the (Non-)Reusability of Fuzzy Sketches and Extractors and Security in the Computational Setting, International Conference on Security and Cryptography (SECRYPT'11), Jul. 2011 (accept. rate for full papers: 13%)

M. Blanton and **M. Aliasgari**, Secure Outsourcing of DNA Searching via Finite Automata, Annual IFIP WG11.3 Working Conference on Data and Applications Security (DBSec'10), Jun. 2010 (accept. rate for full papers: 29.5%)

University Service

Academic Senator, California State University Long Beach (2019-present)

Member of "Build a Growth Strategy" Action Zone as part of Beach 2030, California State University Long Beach (2022-present)

Member of "Re imagine Staff" Action Zone as part of Beach 2030, California State University Long Beach (2022-present)

College of Engineering Strategic Planning, California State University Long Beach (2021-present)

Chair of Tenure-Track Faculty Hiring Committees, Department of Computer Engineering and Computer Science, California State University Long Beach (2019-present; 8 searches and counting)

Chair of Advisory Council on Strategic Enrollment Management (ACSEM), California State University Long Beach (2020-2023)

Member of the Enrollment Tech committee, California State University Long Beach (2020-2023)

Academic Senate Executive Committee, California State University Long Beach (2019-2023)

Member of Associate Vice President for Faculty Affairs Search Committee, California State University Long Beach (2023)

College of Engineering Dean Search Committee, California State University Long Beach (2020-2021)

Secretary of Academic Senate, California State University Long Beach (2019-2020)

College of Engineering Constitution Revision Committee, California State University Long Beach (2019-2020)

Curriculum and Educational Policies Council (CEPC), California State University Long Beach (2018-2019)

Graduate Curriculum Committee, Department of Computer Engineering and Computer Science, California State University Long Beach (2013-2019)

Undergraduate Curriculum Committee, Department of Computer Engineering and Computer Science, California State University Long Beach (2014-2019)

Department Election Committee, Department of Computer Engineering and Computer Science, California State University Long Beach (2013-present)

Tenure-Track Faculty Hiring Committees, Department of Computer Engineering and Computer Science, California State University Long Beach (2014-2019)

College of Engineering Grade Appeal Committee,College of Engineering, California State University Long Beach (2014-2019)

College of Engineering Award Committee,College of Engineering, California State University Long Beach (2016-2018)

Faculty Advisory Committee on Technology (FACT), California State University Long Beach (2015-2017)

Department Meeting Secretary, Department of Computer Engineering and Computer Science, California State University Long Beach (2013-2015)

Department Colloquium Committee, Department of Computer Engineering and Computer Science, California State University Long Beach (2014-2016)

College of Engineering Election Committee, College of Engineering, California State University Long Beach (2013-2014)

Grants

Closing Equity Gaps in Engineering Courses: Interventions and Best Practices for Culturally Responsive Teaching in Engineering , President & Provost Initiative: Faculty Research Awards in Equity, Diversity, and Inclusion, CSULB. PI: S. Moghtadernejad, Co-PI: M. Aliasgari 2022-2023, $15,000

Advancing Equity and Empowerment in Computing , Center for Inclusive Computing. PI: M. Aliasgari, Co-PI: O. Morales Ponce, W. Zhang, J. Trajkovic, T. Maples, F. Golshani, and S. Nachawati 2021-2023, $499,983

Towards Efficient, Reliable, and Secure Chaotic Communications in Wearable Devices , National Science Foundation. PI: A. Hedayatipour, Co-PI: H. Sayadi, A. Rezaei, and M. Aliasgari 2021-2023, $297,449

CSULB Student Enrollment: A Dynamic Model with Projections, CSULB Office of Provost. PI: L. Star, Co-PI: M. Aliasgari and J. Deutschman, 2020-2022, $80,500

*The Transformation of Transportation: The Potential of Distributed Ledger Technologies in Transportation Applications,*California Department of Transportation (Caltrans), PI: S. Chandra, Co-PI: M. Aliasgari, 2020-2021, $30,000

Phase II: Computer Software Design Services for the Pipeline Inspection Pilot Study, Long Beach Water Department, PI: Burkhard Englert, Co-PI: Mehrdad Aliasgari, 2017-2018, $52,658

Computer Software Design Services for the Pipeline Inspection Pilot Study , Long Beach Water Department, PI: Burkhard Englert, Co-PI: Mehrdad Aliasgari, Birgit Penzenstadler, Pitiporn Asvapathanagul, 2015-2017, $62,569

Smart Truck Driver Assistant: A Cost Effective Solution for Real Time Management of Container Delivery to Trucks , METRANS Transportation Center, PI: Burkhard Englert, co-PI: Mehrdad Aliasgari and Shadnaz Asgari, 2015-2016, $74,928

Future Flight Cockpit Human Interface Study , Northrop Grumman, PI: Forouzan Golshani, co-PI: Burkhard Englert,Praveen Shankar, Mehrdad Aliasgari and Bob Ward, 2014, $50,000