

CURRICULUM VITAE**Personal Details**

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Birth Date: 17/10/1971	Birth Place: Australia
Immigration Date: 1980	Citizenship: Israeli
Military/Service: Teacher (מורה חייילת)	

1. Academic Education

Bar-Ilan University, Ramat-Gan, ISRAEL [1993-1995]
B.Sc. Computer Science, (summa cum laude)
Teaching Certificate

Bar-Ilan University, Ramat-Gan, ISRAEL [2002-2004]
M.Sc. Computer Science
Dissertation Topic: "Heuristic Routing in Communication Networks"
Subject Area: Computer Science
Advisor: Prof. Sarit Kraus

Bar-Ilan University, Ramat-Gan, ISRAEL [2007-2011]
Ph.D. Computer Science
Dissertation Topic: "Mining and Classification of Multivariate Sequential Data"
Subject Area: Computer Science
Advisors: Prof. Sarit Kraus and Prof. Gal A. Kaminka

2. Academic Appointments

Teaching Assistant (Bar-Ilan University) [2003]
Department: Computer Science

Teacher - Part Time (מורה מן החוץ) (Bar-Ilan University) [2010]
Department: Computer Science

Teacher - Part Time (מורה מן החוץ) (Jerusalem College of Engineering) [2011]
Department: Industrial Engineering and Management

Postdoctoral Fellow (Bonn University, Bonn, Germany) [2011-2012]
 Research assistant position under the guidance of Prof. Selten
 (I was in Israel; we worked online)

Lecturer (Jerusalem College of Technology) [2011-current]
 Industrial Engineering and Management
 Coordinator (רכזת) - Information Systems track (התמחוות במערכות מידע) (2017-current)

M.Sc. Data Mining program
 Coordinator (רכזת) - M.Sc. Data Mining (תואר שני בכריית מידע) (2019-current)

3. Relevant Non-Academic Employment

- CET - The Center for Education Technology** [2005]
Textbook Development
 Textbook development for mathematical education in elementary school.
- Elron Telesoft, Petach Tikva, ISRAEL** [1996-2000]
Software Engineer
 Developed GUI for Communication Applications.
 Developed Client Server Applications for Security Systems.

4. Awards and Honors for Academic or Professional Achievement

B.Sc. summa cum laude

Bar-Ilan University Presidents scholarship for excellent Ph.D. student

- Best Paper Award** [2013]
Received the best paper award for the paper:
 "REEF: Resolving Length Bias in Frequent Sequence Mining" presented at "*The Third International Conference on Advances in Information Mining and Management*".
 Co-authored with Gal A. Kaminka and Sarit Kraus.

Lev Academic Center Outstanding Lecturer Award [2015]

5. Publications

a. Books, Book Sections

1. A. Richardson, U. Smilansky and Joachim Marzahn "Geometrical Characterization of the Stylus - A Computer-based Approach", Eva Cancik-Kirschbaum/Babette Schnitzlein (ed.), Keilschriftartefakte. Untersuchungen zur Materialität von Keilschriftdokumenten, Berliner Beiträge zum Vorderen Orient 25, PeWe-Verlag, 2018.

b. Peer-Reviewed Papers in Refereed Journals

- 1.A. Azaria, A. Richardson, S. Kraus and V.S. Subrahmanian. "Behavioural Analysis of Insider Threat: A Survey and Bootstrapped Prediction in Imbalanced Data", *IEEE Transactions on Computational Social Systems*, vol.1, no.2, pp.135-155, June 2014. (Q2, IF 2.3, Citations - 113)
2. A. Richardson, S. Kraus, G. Kaminka "REEF: Resolving Length Bias in Frequent Sequence Mining Using Sampling", *International Journal on Advances in Intelligent Systems*, pp. 208-222, 2014. (Citations 4)
3. A. Azaria, A. Richardson, and A. Rosenfeld, "Autonomous Agents and Human Cultures in the TrustRevenge Game", *Autonomous Agents and Multi-Agent Systems*, pp.1-20, (2015) (Q2, IF 1.96, Citations - 4)
4. A. Rosenfeld and A. Richardson. "Explainability in Human-Agent Systems." *Autonomous Agents and Multi-Agent Systems*, pp.1-33, April 2019 (Q2, IF 1.606, Citations - 33)

5. S. Rosenblum, S. Meyer, N. Gemerman, L. Mentzer, A. Richardson, S. Israeli-Korn, V. Livneh, T. Fay Karmon, T. Nevo, G. Yahalom and S. Hassin-Baer. "The Montreal Cognitive Assessment: Is it Suitable for Identifying Mild Cognitive Impairment in Parkinson's Disease? ", *Movement Disorders Clinical Practice*, (May 2020) (Q3, SJR 0.26, Citations - 1)

Submitted (Dec, 2020)

S. Rosenblum, S. Meyer, A. Richardson and S. Hassin-Baer. " Mild cognitive impairment in Parkinson's disease A focus on real-world daily functional characteristics ".

Submitted (Jan 2021)

S. Rosenblum *, A. Richardson *, S. Meyer, T. Nevo, M. Sinai, S. Hassin-Baer "DailyCog: A real-world functional cognitive mobile application for evaluating Mild Cognitive Impairment (MCI) in Parkinson's disease ".

* These authors contributed equally

Peer-Reviewed Papers in Refereed Conference Proceedings

1. A. Richardson, S. Kraus, P. L. Weiss and S. Rosenblum "COACH - Cumulative Online Algorithm for Classification of Handwriting Deficiencies", Proceedings of the Twentieth Annual Conference on Innovative Applications of Artificial Intelligence, pp.1725-1730 (IAAI 2008). (Rank B, IF 1, Citations 15)
2. A. Azaria, A. Richardson and S. Kraus "A System for Advice Provision in Multiple Prospect Selection Problems", The ACM Recommender System conference, pp.1605-1606 (RecSys 2013). (Rank B, IF 2.1, Citations 4)
3. A. Richardson, S. Kraus, G. Kaminka "REEF: Resolving Length Bias in Frequent Sequence Mining", proceedings of The Third International Conference on Advances in Information Mining and Management, pp.91-96 (awarded best paper) (IMMM 2013) (Rank B, IF 1, Citations 1)
4. A. Azaria, A. Richardson A. Elmalech, and A Rosenfeld "Automated Agents' Behavior in the Trust-Revenge Game in Comparison to Other Cultures", 13th International Conference on Autonomous Agents and Multiagent Systems, pp.1389-1390 (AAMAS 2014) (Rank A*, IF 0.95, Citations 6)
5. A. Azaria, A. Richardson and S. Kraus "An Agent for the Prospect Presentation Problem", 13th International Conference on Autonomous Agents and Multiagent Systems, pp.989-996 (AAMAS 2014) (Rank A*, IF 0.95, Citations 11)
6. A. Richardson and U. Smilansky "Geometrical Feature Extraction for Cuneiforms", Proceedings of 8th International Conference on the Prestigious Applications of Intelligent Systems, pp.1173-1178 (PAIS 2014). (Rank A)

7. A. Azaria, A. Richardson and S. Kraus "An Agent for Deception Detection in Discussion Based Environments", The 18th ACM conference on Computer-Supported Cooperative Work and Social Computing, pp.218-227 (CSCW 2015). (Rank A, IF- 4.82, Citations 13)
8. A. Richardson, A. Perl, S. Natan and G. Segev "A Clinical Decision Support System Based on an Unobtrusive Mobile App", Proceedings of the 5th International Conference on Information and Communication Technologies for Ageing Well and e-Health, pp.167-173, May 2019.
9. A. Richardson, S. Ben Ari, M. Sinai, A. Atsmon, and E. S. Conley, Y. Gat and G. Segev "Mobile Applications for Stroke: A Survey and a Speech Classification Approach", Proceedings of the 5th International Conference on Information and Communication Technologies for Ageing Well and e-Health, pp.159-166, May 2019 (Citations – 2).
10. A. Rosenfeld and A. Richardson "Why, Who, What, When and How about Explainability in Human-Agent Systems", 19th International Conference on Autonomous Agents and Multiagent Systems pp.2161-2163, AAMAS 2020 (Citations – 1).
11. A. Richardson, H. Raz, G. Segev and S. Rosenblum "Multidisciplinary Research in e-Health - Challenges and Thoughts", Proceedings of the 6th International Conference on Information and Communication Technologies for Ageing Well and e-Health, pp.250-255, May 2020.

c. Peer-Reviewed Papers in Refereed Workshop Proceedings

1. A. Richardson, S. Kraus, G. Kaminka "CUBS: Multivariate Sequence Classification Using Bounded Z-score with Sampling", 4th International Workshop on Mining Multiple Information Sources, pp.72-79 (MMIS 2010, Citations 4).
2. A. Azaria, A. Richardson and S. Kraus "Autonomous Agent for Deception Detection", Human-Agent Interaction Design and Models, pp.70-81, 2013 (HADIM 2013, Citations 1).
3. A. Azaria, A. Richardson, A. Elmalech, A. Rosenfeld, S. Kraus and D. Sarne "On Automated Agents Rationality", Human-Agent Interaction Design and Models, pp.1-15, 2013 (HADIM 2013).
4. A. Richardson and A. Rosenfeld "A Survey of Interpretability and Explainability in Human-Agent Systems", IJCAI/ECAI 2018 Workshop on Explainable Artificial Intelligence (XAI), 2018, pp.137-142 (Citations – 14).

d. Poster and Other Presentations

1. S. Azogy, A. Richardson and S. Rosenblum "Revisiting Classification of Handwriting Deficiencies", Data Mining for Business Intelligence, Ben-Gurion University of the Negev, 2016.

2. A. Richardson, A. Perl, S. Natan and G. Segev "Health DSS for Vascular Disease", Data Mining for Business Intelligence, Ben Gurion University of the Negev, May, 2018.
3. A. Richardson, S. Ben Ari, M. Sinai, A. Atsmon, and E. S. Conley, Y. Gat and G. Segev "Mobile Applications for Stroke: A Survey and a Speech Classification Approach", The Israeli Association for Artificial Intelligence Symposium, 2018.
4. אריאלה ריכרדסון, שרה רוזנבלום ושרון חסין . "יישום להערכה תפקודית קוגניטיבית ממוקדת, של אנשים עם חסר קוגניטיבי קל עקב מחלת פרקינסון - אפיון, פיתוח ותובנות" הכינוס השנתי של האיגוד הישראלי למערכות מידע ברפואה לשנת 2018 (ILAMI 2018)
5. אריאלה ריכרדסון, חיה רוז, ספיר נתן, אביגיל פרל, מעין סיני, שני בן-ארי, גיל שגב . "הדגמת מערכת לזיהוי אוטומטי של מחלות כלי דם בזמן אמת" . הכינוס השנתי של האיגוד הישראלי למערכות מידע ברפואה לשנת 2018 (ILAMI 2018)
6. A. Richardson, S. Rosenblum and S. Hassin-Baer "On Multidisciplinary Teamwork in the Design of DailyCog for Evaluating Mild Cognitive Impairment (MCI) in Parkinson's Disease", International Conference on Virtual Rehabilitation 2019.
7. S. Rosenblum, S. Meyer, N. Gemerman, L. Mentzer, A. Richardson, S. Israeli-Korn, V. Livneh, T. Fay Karmon, T. Nevo, G. Yahalom, S. Hassin-Baer "Do we have the appropriate tools for measuring cognitive decline in PD-MCI patients?", 4th congress of the Swiss Federation of Clinical Neuro-Societies (SFCNS) (October 2019).
8. אריאלה ריכרדסון, מרים בן-הרוש, יעל קניג, יוחאי גת, אהוד קונלי ושרה רוזנבלום. "שימוש בכלי למידת מכונה לדיוק באבחון DCD" - הכינוס השנתי של האיגוד הישראלי למערכות מידע ברפואה לשנת 2020 (ILAMI 2020)

6. Funded Projects, Grants or Contracts

1. *Israel, Ministry of Science, Technology and Space* [2016- 2019]
קול קורא - מדע, טכנולוגיה וחדשנות למען האוכלוסייה בגיל השלישי 2016
"Real-world functional cognitive application for evaluating people with Mild Cognitive Impairment (MCI) in Parkinson's disease (PD)- Daily-Cog (Approved 14/12/16)"
(מס בקרן – 3-13719, מספר המחקר 45838)
2. *Israel, Ministry of Science, Technology and Space* [approved 6/12/2020 –current]
Call for Proposals 2021 Research Program "Maimonide-Israel"
"Artificial intelligence for integration of multimodal systems biology data from small size data sets: modeling intestinal tumorigenesis with or without chronic low-dose gamma-irradiation"
Role: Investigator (Researcher), This grant (no. 103348) from the ministry of Science and Technology is given to Dr. Yehoshua Socol (JCT) - *Principle Investigator*, Dr. Ariella Richardson – *Investigator* and colleagues from the IRSN-France.

Other Relevant Academic and Professional

Program Chair - BISFAI-2015

Organized conference program for the Bar-Ilan Symposium on Foundations of Artificial Intelligence 2015

Keynote Session Chair - BISFAI-2015

Served as session chair for keynote session in the Bar-Ilan Symposium on Foundations of Artificial Intelligence 2015

Participation in Peripheral Interventions X Challenge competition 2017

Our Team From JCT (Ariella Richardson, Ehud Conley, Yochai Gat) + BGSEGEV (Gil Segev) reached the final 5 competitors in the X-Challenge. We presented a mobile solution for the detection and monitoring of PVD. <http://www.medxelerator.com/x-challenge/>

Session Chair – ICT4AWE-2020

Served as session chair for session in the International Conference on Information and Communication Technologies for Ageing Well and e-Health, May 2020

Reviewing**Before latest appointment**

Reviewing Activities (under supervisor)
AAMAS 2012
IJCAI 2011

Since latest appointment

PC member AAMAS 2014
IMMM Advisory Committee (IMMM 2014)
PC member HAIDM 2015
PC member AAMAS 2015
IMMM Advisory Committee (IMMM 2015)
PC member IJCAI 2016
PC member AAMAS 2016
PC member AAAI 2016
PC member HAIDM 2016
IMMM Advisory Committee (IMMM 2016)
PC member AAMAS 2017
PC member AAMAS 2018
PC member AAMAS 2019
PC member IJCAI 2019
PC member AAMAS 2021

Guest Editor for Special Issue - Human-Computer Interaction in Smart Environments for the journal *Sensors*. (Deadline for manuscript submissions: 31 January 2021, https://www.mdpi.com/journal/sensors/special_issues/HCI_smart_environments)

Invited Talks

Speaker - Seminar day organized under the *Israel, Ministry of Science, Technology grant* (see item 7.6), Sheba Medical Center, Ramat Gan, Oct, 2018

תפקוד קוגניטיבי ויישום טכנולוגי - למה, ואיך?

Student Supervision

Since latest appointment

Supervision of a student under the program for excellent students at JCT (2014, 2015).

Topic: Development of a tool for diagnosing children with difficulties performing "Executive Functions" presented at "The Fourth Data Mining for Business Intelligence conference" (DMBI 2016)

Supervision of students in the program for excellent students at JCT (2018, 2019).

Myriam Benarousse, Yael Koenig (together with Dr. Yochai Gat)

Supervision of many project students, as part of פרויקט גמר

Courses Taught

Before latest appointment

Object Oriented Programming

Computer Structure

Foundations of Programming

Since latest appointment

Introduction to Programming

Data Structures and Algorithms

Data Bases

Systems Analysis and Design A

Systems Analysis and Design B

Introduction to Artificial Intelligence

Data Mining

Electronic Commerce

Big Data (including course development)

Others

Participation as a mentor in the תומך הוראה program, for the support and improvement of peer lecturers 2018-current