

# Kim Baraka

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Assistant Professor (Tenured)

Social Artificial Intelligence Group, Department of Computer Science, Vrije Universiteit Amsterdam

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Pronouns: he/they

*Note to digital viewers: All colored text contains hyperlinks.*

## EDUCATION

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- Carnegie Mellon University (CMU), The Robotics Institute (RI)** PITTSBURGH, PA, USA  
**Ph.D. in Robotics** Aug '16 – Aug '20  
Thesis committee: Manuela Veloso (co-advisor), Francisco S. Melo (co-advisor), Henny Admoni, Aaron Steinfeld, Iolanda Leite, and Luca Iocchi. GPA: 4.0/4.0.
- Instituto Superior Técnico (IST), Universidade de Lisboa** LISBON, PORTUGAL  
**Ph.D. in Electrical and Computer Engineering (ECE)** May '17 – Aug '20  
Awarded “with Distinction” as part of the CMU/Portugal dual degree program.
- CMU, RI** PITTSBURGH, PA, USA  
**M.S. in Robotics** Aug '14 – May '16  
Thesis committee: Manuela Veloso (advisor), Illah Nourbakhsh, Stephanie Rosenthal, and Heather Knight. GPA: 4.0/4.0.
- American University of Beirut (AUB)** BEIRUT, LEBANON  
**Bachelor in ECE** Oct '09 – Dec '13  
Graduated “with High Distinction”. Minors in Physics, Mathematics, and Philosophy.  
Final Year Project supervisors: Rouwaida Kanj and Ayman Kayssi. GPA: 4.0/4.0.

## EMPLOYMENT

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- Vrije Universiteit (VU) Amsterdam, Dept. of Computer Science (CS)** AMSTERDAM, THE NETHERLANDS  
**Assistant Professor (Universitair Docent 2), Tenured** Apr '21 – present  
Member of the Social Artificial Intelligence group.
- The University of Texas (UT) at Austin, ECE Department** AUSTIN, TX, USA  
**Postdoctoral Research Fellow** Sep '20 – Mar '21  
Conducted research on algorithms for robots learning from humans in the Socially Intelligent Machines (SIM) Lab, under Andrea Thomaz.
- INESC-ID** LISBON, PORTUGAL  
**Junior Researcher** May '17 – April '19  
Worked as part of the Group on Artificial Intelligence for People and the Society (GAIPS), led by Ana Paiva. Conducted part of my Ph.D. research within the INSIDE project in partnership with the Child Development Center at the Hospital Garcia de Orta.
- Visiting Researcher** Jun – Jul '15  
Conducted Human-Robot Interaction research in the GAIPS group under Ana Paiva. Work included programming a social mobile robot for fluid interaction in a study with autistic children and integrating a 3D animation software with a manipulator robot.
- AUB** BEIRUT, LEBANON  
**Research Assistant: Task scheduling in the future Smart Power Grid** Oct '13 – Jul '14  
Designed a fast heuristic algorithm for the NP-hard Resource Leveling Problem in the context of task scheduling for houses connected to the future Smart Grid. Supervisors: Rouwaida Kanj and Fadi Zaraket.
- Research Assistant: Vehicular Ad Hoc Networks (VANET)** Feb – May '13  
Designed a smart sensing architecture for cognitive VANETs. Supervisor: Hassan Artail.
- European Organization for Nuclear Research (CERN)** GENEVA, SWITZERLAND  
**Summer Intern** Jun – Jul '13  
Contributed to Garfield++, a software for simulation of gaseous particle detectors, and studied its applications to the Time Projection Chamber of the ALICE experiment on the Large Hadron Collider. Supervisors: Christian Lippmann and Heinrich Schindler

**Musical Lights** BEIRUT, LEBANON  
**Main Engineer** Oct '13 – Jul '14  
 Developed an innovative interactive music educational system within a startup environment. Strategized and contributed technical details of U.S. patent application No. 20150332601.

**University of California San Diego, ECE Department** SAN DIEGO, CA, USA  
**Summer Intern** Jul – Aug '12  
 Worked in the Telecom Integrated Circuits and Systems group under [Gabriel Rebeiz](#). Built and tested all parts of a 7 MHz Ham Radio on a Printed Circuit board.

## GRANTS, AWARDS, and HONORS

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**Hybrid Intelligence Consortium PhD project (4 years, total value €270k)** Aug '23  
 “More than the sum of the (p)arts: fostering synergy in hybrid human-AI creative processes” (in collaboration with [Dirk Heylen](#)).

**Connected World Academy Assistants Grant, VU (9 months, total value €14.5k)** Jun '22  
 “Who’s a good robot?!” Human-robot teaching interactions inspired by dog training” (in collaboration with [Daniel Preciado Vanegas](#)).

**Network Institute Research Voucher, VU (total value €1k)** Jun '22  
 “Human-robot teaching interactions inspired by dog training: an exploratory co-design approach” (in collaboration with [Daniel Preciado Vanegas](#)).

**Network Institute Academy Assistants Grant, VU (10 months, total value €20k)** Jul '21  
 “What makes a Good Teacher? Modeling Inter-Individual Differences in Humans who Teach Agents” (in collaboration with [Daniel Preciado Vanegas](#)).

**“Innovation PhD” Tenure-Track Project Grant, CS dept., VU (4 years, personal value €135k)** Jun '21  
 Granted by the VU CS dept. for the project “Robot behavior learning with influenceable human teachers” (in collaboration with [Gusztai Eiben](#) and [Koen Hindriks](#)).

**RSS Pioneer** Jun '19  
 Selected to be part of a fully funded doctoral consortium at the “Robotics: Science and Systems (RSS)” conference (*acceptance rate 30%*)

**Best Paper and Best Student Paper Award Nominations** May '19  
 AAMAS'19: “An Optimization Approach for Structured Agent-Based Provider/Receiver Tasks” (*conference acceptance rate 24%*)

**CMU/Portugal Ph.D. Fellowship (4 years)** Aug '16 – present  
 Awarded by the [Fundação para a Ciência e a Tecnologia](#) (Portugal)

**CMU M.S. Research Funding (1.5 year)** Jan '15 – May '16  
 Tuition and stipend coverage for research in the [CORAL](#) group.

**IEEE Student Enterprise Award** Aug '13  
 Awarded for innovative Smart Home technology (included \$800 monetary prize)

**AUB Dean’s Creative Achievement Award** May '13  
 Awarded for creative innovation in Bachelor thesis work

**AUB Full Merit Scholarship (4.5 years)** Oct '09 – Dec '13

**AUB Dean’s Honor List (all semesters)** Oct '09 – Dec '13

**“Most Uncanny” Award at the 2015 Robot Film Festival** Nov '15  
 Awarded for a [short movie](#) featuring a Baxter robot programmed to dance with humans

**RobotArt Competition (\$2,500 prize)** Jan '16  
 Awarded for collaborative robot painter (9th place)

## TEACHING

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### TAUGHT COURSES

**VU Amsterdam, AI Master program** AMSTERDAM, THE NETHERLANDS  
**Socially Intelligent Robotics (co-taught with [Koen Hindriks](#))** Nov '21 – present  
**Socially Intelligent Robotics Project (previously co-taught with [Koen Hindriks](#))** Jan '22 – present

**VU Amsterdam, AI Bachelor program** AMSTERDAM, THE NETHERLANDS  
**Product Innovation Project (coordinated by [Fabio Massacci](#))** April '22 – present

Introduction to AI (mentor), coordinated by **Ilaria Tiddi**

Sep '22 – present

## GUEST LECTURES

Leiden University

Law and Human-Machine Interaction course (Master), taught by **Eduard Fosch-Villaronga** May '22

Utrecht University, Department of Media and Culture Studies

Expanding Performance course, taught by **Laura Karreman** Dec '21 and Dec '22

CMU, Robotics Institute

Human-Robot Interaction course (Bachelor), taught by **Henny Admoni** March '20

## TEACHING ASSISTANTSHIPS

IST, Dept. of Computer Science & Engineering

LISBON, PORTUGAL

Machine Learning and Intelligent Decision Making (Master) Feb – Jun '18

CMU, RI

PITTSBURGH, PA, USA

Human-Robot Interaction (Master) Jan – May '17

AUB, ECE Dept.

BEIRUT, LEBANON

Digital Integrated Circuits (Bachelor/Master) Feb – May '13

Assisted in homework solutions/corrections and lab assignments.

Electronic Circuits (Bachelor) Oct '12 – May '13

Taught weekly problem solving sessions for two editions of the course.

## TEACHING and SUPERVISION TRAINING

VU Learn! Academy

AMSTERDAM, NETHERLANDS

Inspired PhD supervision Mar – May '23

Eberly Center for Teaching Excellence and Educational Innovation, CMU

PITTSBURGH, PA, USA

Future Faculty Program (equivalent to Dutch BKO) Jul '19 – Aug '20

## RESEARCH SUPERVISION

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### CURRENT PH.D. STUDENTS

Leiden Institute of Advanced Computer Science / VU Amsterdam

LEIDEN / AMSTERDAM, THE

NETHERLANDS

**Bernhard Hilpert (co-supervision)** Feb '23– present

“Closing the Teacher-Learner Loop: the Role of Affective Signals in Interactive Reinforcement Learning.”  
(with Joost Broekens and Aske Plaat).

VU Amsterdam, AI section

AMSTERDAM, THE NETHERLANDS

**Muhan Hou (main supervision)** Nov '21– present

“Multi-modal Teaching of Robot Social Behavior.” (with Koen Hindriks and Gusztai Eiben).

Utrecht University, Media and Culture Studies

UTRECHT, THE NETHERLANDS

**Irene Alcubilla-Troughton (co-supervision)** Apr '22 – present

“Relational Social Interaction and Communication. A Performing Arts Approach to Non-Verbal Human-Robot Interaction.” (with Maaïke Bleeker and Koen Hindriks, part of the [Acting Like a Robot](#) project).

### OTHER PH.D. LEVEL MENTORING/COLLABORATION

UT Austin, SIM Lab

AUSTIN, TX, USA

**Mai Lee Chang (currently at Carnegie Mellon University)** Sep '20 – present

“Fairness in human-robot teams”. In collaboration with [Greg Trafton](#) (U.S. Naval Research Laboratory).

**Taylor Kessler Faulkner (currently at the University of Washington)** Sep '20 – Mar '21

**Shih-Yun Lo** Sep '20 – Mar '21

**Akanksha Saran (currently at Microsoft Research)** Sep '20 – Mar '21

### RESEARCH ASSISTANTS

VU Amsterdam

AMSTERDAM, NETHERLANDS

**Oromia Sero and Hendrik von Kentzinsky** Nov '22 – Jul '23

“Human-robot Teaching Interactions Inspired by Principles of Dog Training”

**Murat Han Aydoğan (Erasmus+ student, Koç University)** Jul '22 – Sep '22

“Prosody of Human Teachers in Interactive Reinforcement Learning”

**Raj Bhalwankar and Mehul Verma** Nov '21 – Aug '22

“What Makes a Good Teacher? Modeling Inter-Individual Differences in Humans who Teach Agents”

<b>Fajjaaz Chandoe (co-supervised with Muhan Hou)</b>	<i>Feb '22 – Jun '22</i>
“Automatic Calibration of External Vision System for Robot Perception”	
<b>Hendrik von Kentzinsky</b>	<i>Feb '22 – Sep '22</i>
“Robotic Improviser for Open-ended Non-verbal Interactions with Humans”. Co-supervised with Maaïke Bleeker and Irene Alcubilla Troughton.	
<b>UT Austin, SIM Lab</b>	<b>AUSTIN, TX, USA</b>
<b>Kenneth Mitra</b>	<i>Aug '21 – present</i>
“Prosody-Sensitive Interactive Reinforcement Learning with Verbal Cues”. Co-supervised with Taylor Kessler Faulkner and Akanksha Saran.	
<b>Ojas Patel, Rakesh Johny, Rohan Rao, and Roshan Rajan</b>	<i>Nov '20 – Mar '21</i>
“Multi-modal Teaching Interface for a Robot Arm”	
<b>CMU</b>	<b>PITTSBURGH, PA, USA</b>
<b>Jocelyn Huang and Patrick Lin</b>	<i>Jan – May '17</i>
“Designing Autism-like Behaviors for a Humanoid Robot”	
<b>Minji Kim and Harleigh Awner</b>	<i>Jan – May '17</i>
“Building a 3D Animated Avatar Exhibiting Autism-like Behaviors”	
<b>MASTER THESES</b>	
<b>VU Amsterdam</b>	<b>AMSTERDAM, NETHERLANDS</b>
<b>Adwitiya Mandal</b>	<i>Mar – Aug '23</i>
“Robot Learning through Kinesthetic Corrective Feedback”	
<b>Hendrik von Kentzinsky</b>	<i>Dec '22 – present</i>
“Rule-based Robot Improvisation through Imitating Expert Policies”	
<b>Konstantinos Christofi</b>	<i>Mar – Aug '23</i>
“Robot Learning from Rich Feedback”	
<b>Matilda Knierim</b>	<i>Mar – Aug '23</i>
“Reinforcement learning from audio feedback”	
<b>Jorn Verheggen</b>	<i>Mar – July '22</i>
“A Novel Device for Kinesthetic Corrective Feedback during Robot Motion”	
<b>Nienke Prent (co-supervised with Daniel Preciado)</b>	<i>Mar – July '22</i>
“Human-Robot Teaching Interactions Inspired by Animal Training”	
<b>External</b>	
<b>Rodrigo Ferreira (UNIFESP Brasil) (co-supervisor)</b>	<i>ongoing</i>
“Using Cognitive Architectures to Support Robot-Mediated Teaching”	
<b>Samantha Speer (CMU, RI) (thesis committee member)</b>	<i>Nov '19 – Apr '20</i>
“Grounding Abstract Concepts With Robotic Manipulatives”	
<b>BACHELOR THESES</b>	
<b>VU Amsterdam</b>	<b>AMSTERDAM, NETHERLANDS</b>
<b>Jeanine Buurma</b>	<i>April – July '23</i>
“Preference-based reward learning for robot social greeting behaviors”	
<b>Omer Faruk Cakici</b>	<i>April – July '23</i>
“Programming robot motion through speech and gestures”	
<b>Selma Dissing</b>	<i>April – July '23</i>
“Robot motion programming using a motion tracking suit”	
<b>Ariana Vargas Pastor</b>	<i>April – July '23</i>
“Puppeteering system for full body robot control”	
<b>Jie-xin (Jessie) Liu</b>	<i>April – July '23</i>
“Hierarchical teaching system for a mobile social robot using speech”	
<b>Andrei Dragomir</b>	<i>April – July '23</i>
“Learning from kinesthetic demonstrations on a robot arm”	
<b>Piotr Sobecki</b>	<i>April – July '23</i>
“Subject-driven smart cropping” (internship at ML6)	
<b>Sam Shahbazi</b>	<i>April – July '22</i>
“End-User Programming of Robot Trajectories by Using Natural Communication”	

<b>Fakhr-Eldin Jaber</b> "Robot Learning from Human Preference via Active Querying"	April – July '22
<b>Bahadır Kuçuk</b> "Humanoid Robot Control from Human Joint Angles via 2D Camera"	April – July '22
<b>Pleun Veenendaal</b> "Puppeteer Me: A Usability Study"	April – July '22
<b>Marina Santos</b> "Human Perception of Responsive Robot Body Movement"	April – July '22
<b>Nick Dijkhuizen</b> "Speech-based Hierarchical Teaching System For a Humanoid Robot"	April – July '22
<b>Milan de Jonge (in collaboration with Fectar)</b> "Optimizing how Users Explore an AR Space"	April – July '21

## SERVICE and OUTREACH

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### RESEARCH-RELATED

#### Event organization

##### International

ACM/IEEE International Conference on Human-Robot Interaction 2024 (Alt-HRI chair)  
 International Conference on Movement and Computing (Steering committee member)  
 RSS Pioneers '20 (Program chair)  
 ICRA'22 Debates on the Future of Robotics Research  
 HRI Workshop on Human-Interactive Robot Learning (HIRL) (2 editions)  
 RSS'21 Workshop on Robotics for People: Perspectives on Interaction, Safety, and Learning  
 HRI '23 Workshop on Semantic Scene Understanding for Human-Robot Interaction

##### Local

Interdisciplinary Workshop on the Digital Society (IWDS) (2 editions)

#### Lead Guest Editor

Special Issue on Robots and Autism: Conceptualization, Technology, and Methodology (Paladyn, Journal of Behavioral Robotics) May '21

#### Editor

Paladyn, Journal of Behavioral Robotics Feb '19 – present

#### Standard working group member

IEEE Study/Working Group on Metrology for Human-Robot Interaction Sep '21 – Sep '22

#### Program Committee Member

AAMAS ('22 and '23) *\*Best 2022 PC member award\**  
 AAAI'23  
 HRI Pioneers '22  
 International Conference on Social Robotics '17  
 IEEE International Smart Cities Conference '22  
 AAAI'22 Explainable Agency in Artificial Intelligence Workshop  
 International Workshop on Explainable, Transparent Agent and Multi-Agent Systems '21  
 International Workshop on Evaluation Methods Standardization for Human-Robot Interaction '17

#### Reviewer

(Journals) Frontiers in Robotics and AI; THRI; SORO; Adaptive Behavior; Paladyn; IEEE Systems; Industrial Informatics; RA-L...  
 (Conferences) HRI; IROS; Humanoids; ICDL-EpiRob; ICSR; RO-MAN; HAI; ACII; MOCO; Robophilosophy; Ubiquitous Robots...  
 (Workshops/Symposia/Consortia) RSS Pioneers; AAAI Symp. on AI for HRI; AHRI @ RSS'17; HRI Pioneers; MOCO doctoral consortium; EAAI @ AAAI'22...  
 (Book proposals) Springer Int. Series on Computer Entertainment & Media Technology  
 (Grant proposals) US NSF Robotics, NWO Open Competition XS grant, FWF Austrian Science Fund

### MENTORING

#### Individual mentoring session

International Conference on Motion and Computing '22 Chicago, IL, USA (remote), Jun '22

**Panelist: advice for post-PhD careers in robotics**

RSS Pioneers '22

New York City, NY, USA (remote), Jun '22

**Post-PhD forum mentor**

Symposium on Human-Machine Interaction: Perception, Social Learning, Personalised Adaptation in Educational Settings

Lausanne, Switzerland (remote), Oct '21

**Speaker at AI4ALL 'AI and Humanities' event**

Gave a talk and Q&A to talented U.S. high school students from historically excluded backgrounds.

virtual, Jun '20

## DEPARTMENTAL

**VU Amsterdam**

AMSTERDAM, NETHERLANDS

**Research team lead, Network Institute**

Sep '21 – present

Leading a team aimed at improving research synergies across faculties/departments within and outside the VU. Activities include [research lunches](#), [workshops](#), and [research visits](#).

**CMU, RI**

PITTSBURGH, PA, USA

**Interview Committee Member for Director Search**

Oct '19 – present

Interviewed and rated candidates for the CMU Robotics Institute director position as a student representative.

**Ethics Advocate**

Jun '19 – Aug '20

Co-organized a student-led effort to introduce specialized ethics education in our robotics curriculum. Was invited to the faculty retreat to present our vision and survey findings.

**IST**

LISBON, PORTUGAL

**Reading Group Organizer**

Feb '18 – May '19

Started a campus-wide HRI reading group (now evolved into [Talking Robotics podcast](#)) at IST, where papers are discussed on a weekly basis, and discussion minutes are posted [online](#).

## AFFILIATIONS

**Institute of Electrical and Electronics Engineers (IEEE) Member**

Dec '09 – present

## PUBLICATIONS (up-to-date list at [this link](#).)

(full texts available through [hyperlinks](#))

### JOURNALS

- [J1] **Baraka K.**, Couto M., Melo F.S., Paiva A., Veloso M.: *“Sequencing Matters”: Investigating Suitable Action Sequences in Robot-Assisted Autism Therapy*. *Frontiers in Robotics and AI*, 9, 2022.
- [J2] **Baraka K.**, Melo F.S., Couto M., Veloso M.: *“Optimal Action Sequence Generation for Assistive Agents in Fixed Horizon Tasks”*, *Journal of Autonomous Agents and Multi-Agent Systems*, Springer, 2020.
- [J3] **Baraka K.**, Melo F.S., Veloso M.: *“Interactive Robots with Model-Based ‘Autism-Like’ Behaviors”*, *Paladyn, Journal of Behavioral Robotics*, Special Issue on Social Robots in Therapy 10(1), 103-116, De Gruyter, 2019.
- [J4] **Baraka K.**, Veloso M.: *“Mobile Service Robot State Revealing through Expressive Lights: Formalism, Design and Evaluation”*, *International Journal of Social Robotics* 10(1), 65-92, Springer, 2018.
- [J5] **Baraka K.**, Safatly L., Artail H., Ghandour A., El-Hajj A.: *“An Infrastructure-aided Cooperative Spectrum Sensing Scheme for Vehicular Ad Hoc Networks”*, *Ad Hoc Networks* 25, 197-212, Elsevier, 2015.

### CONFERENCES

- [C1] Verheggen, J., **Baraka K.**, *“A novel device for kinesthetic corrective feedback during robot motion”*. In Proceedings of ICRA'23, the International Conference on Robotics and Automation, June, 2023 (to appear).
- [C2] Yin, W., Yin, H., **Baraka K.**, Kragic, D., Bjorkman, M.: *“Dance Style Transfer with Cross-modal Transformer”*. In Proceedings of WACV'23, the IEEE/CVF Winter Conference on Applications of Computer Vision, Waikuluu, Hawaii, January, 2023. **\*Best Paper award finalist\***
- [C3] Alcubilla-Troughton I., **Baraka K.**, Hindriks K., Bleeker M. *“Robotic Improvisers: Rule-Based Improvisation and Emergent Behaviour in HRI”*. In Proceedings of HRI'22, the ACM/IEEE International Conference on Human-Robot Interaction (alt.HRI track), Sapporo, Japan, March, 2022. (acceptance rate 23.8%)
- [C4] **Baraka K.**, Couto M., Melo F. S., Veloso M.: *“An Optimization Approach for Structured Agent-Based Provider/Receiver Tasks”*, In Proceedings of AAMAS'19, the International Conference on Autonomous Agents and Multiagent Systems, Montreal, Canada, May, 2019. (acceptance rate 24%) **\*Best Paper and Best Student Paper awards nominee\***

- [C5] **Baraka K.**, Melo F. S., Veloso M.: “ ‘Autistic Robots’ for Embodied Emulation of Behaviors Typically Seen in Children with Different Autism Severities”, In Proceedings of ICSR’17, the International Conference on Social Robotics, Tsukuba, Japan, December, 2017.
- [C6] **Baraka K.**, Melo F. S., Veloso M.: “Data-Driven Generation of Synthetic Behavioral Feature Vectors Modeling Children with Autism Spectrum Disorders”, In Proceedings of ICDL-EpiRob’17, the Joint IEEE International Conference on Development and Learning and Epigenetic Robotics, Lisbon, Portugal, September, 2017.
- [C7] **Baraka K.**, Melo F. S., Veloso M.: “Simulating Behaviors of Children with Autism Spectrum Disorders Through Reversal of the Autism Diagnosis Process”, In Proceedings of EPIA’17, the Portuguese Conference on Artificial Intelligence, Porto, Portugal, September, 2017.
- [C8] **Baraka K.**, Rosenthal S., Veloso M.: “Enhancing Human Understanding of a Mobile Robot’s State and Actions using Expressive Lights”, In Proceedings of RO-MAN’16, the IEEE International Symposium on Robot and Human Interactive Communication, New York, USA, August, 2016.
- [C9] **Baraka K.**, Veloso M.: “Adaptive Interaction of Persistent Robots to User Temporal Preferences”, In Proceedings of ICSR’15, the International Conference on Social Robots, Paris, France, October, 2015.
- [C10] **Baraka K.**, Paiva A., Veloso M.: “Expressive Lights for Revealing Mobile Service Robot State”, In Proceedings of Robot’15, the Second Iberian Robotics Conference, Lisbon, Portugal, November, 2015. (also presented at the AAAI Fall Symposium on AI for HRI, Arlington, VA, USA, 2015)
- [C11] **Baraka K.**, Ghobril M., Malek S., Kanj R., Kayssi A.: “Low Cost Arduino/Android-Based Energy-Efficient Home Automation System with Smart Task Scheduling”, In Proceedings of International Conference on Computational Intelligence, Communication Systems and Networks (CICSyN), 2013.

## BOOK CHAPTERS

- [B1] **Baraka K.\***, Alves-Oliveira P.\*, Ribeiro T.: “An Extended Framework for Characterizing Social Robots”, In Jost C., Le P ev edic B., Belpaeme T., Bethel C., Chrysostomou D., Crook N., Grandgeorge M., Mirnig N. (eds.) Human-Robot Interaction: Evaluation Methods and Their Standardization, Springer, 2020.

## WORKSHOPS AND SYMPOSIA (peer-reviewed)

- [W1] Hou M., **Baraka K.**, Hindriks K., Eiben G.: “A Natural and Efficient Interactive Learning Framework for Human-Robot Social Greeting”. In the HRI’22 Workshop on Human-Interactive Robot Learning, online, March, 2022.
- [W2] **Baraka K.**: “Enabling Role-Reversible Human-Robot Interaction by Leveraging Standardized Provider/Receiver Procedures”. In the RSS’19 Pioneers Workshop, Freiburg, Germany, June, 2019.
- [W3] **Baraka K.**, Melo F. S., Veloso M.: “Towards an Embodied Simulator of Autistic Child Behaviors: an Improved Method for Selecting Simulated Behaviors”, In Proceedings of the Workshop on Social Robots in Therapy at HRI’18, Chicago, USA, March, 2018.
- [W4] **Baraka K.**, Melo F. S., Veloso M.: “Embodied Robotic Visualization of Autistic Child Behaviors with Varying Severities”, In the Workshop on Behavior Adaptation, Interaction and Learning for Assistive Robotics at RO-MAN’17, Lisbon, Portugal, September, 2017.
- [W5] **Baraka K.**, Veloso M.: “Multi-Channel Expression of State Information in a Mobile Service Robot using Animated Lights”, In the Workshop on Autonomous Mobile Service Robots at IJCAI’16, New York, USA, July, 2016.

## EDITORIAL NOTES

- [E1] **Baraka K.**, Beights R., Couto M., Radice M.: “Human-Interactive Robot Learning (HIRL)”, In Proceedings of HRI’23, the ACM/IEEE International Conference on Human-Robot Interaction, March, 2023.
- [E2] **Baraka K.**, Beights R., Couto M., Radice M.: “Editorial note: Special issue on robots and autism: Conceptualization, technology, and methodology”, Paladyn, Journal of Behavioral Robotics, 12(1), 297-298, De Gruyter, 2021.

## OPINIONS

- [O1] **Baraka K.**: “Why Robotics Labs Should Look More Like Theaters”, Op-ed piece, Connected World Book, VU Press, 2023 (to appear).

## THESES

- [T1] **Baraka K.**: “Automated Action Selection and Embodied Simulation for Socially Assistive Robots using Standardized Interactions”, Ph.D. thesis, August, 2020.

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\*Equal contribution

- [T2] **Baraka K.**: “Effective Non-Verbal Communication for Mobile Robots using Expressive Lights”, M.S. thesis, May, 2016.
- [T3] **Baraka K., Ghobril M., Malek S.** : “AAHA: Android/Arduino Home Automation System”, Bachelor Final Year Project, May, 2013.

## INVITED TALKS and OTHER PRESENTATIONS

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<b>Universidade Federal de São Paulo (invited talk) Link</b>	<i>São Paulo, Brazil (remote), Feb '23</i>
<b>Robot improvisational jam (in collab. with Triplets and Zid theater)</b>	<i>Amsterdam, Netherlands, Dec '22</i>
<b>Winter School on Embodied AI (invited demo)</b>	<i>Ghent, Belgium, Dec '22</i>
<b>Panel: Does AI need a body? (invited panelist)</b>	<i>VU Amsterdam, Dec '22</i>
<b>RSS Pioneers Workshop (invited talk)</b>	<i>New York City, NY (remote), Jul '22</i>
<b>Playful robots: Robot installation at SPRING Festival</b>	<i>Utrecht, Netherlands, May '22</i>
<b>European Space Agency, Advanced Concepts Team Science Coffee</b>	<i>virtual, Sep '21</i>
<b>RSS 2021 Workshop on Robotics x Arts (invited panelist)</b>	<i>virtual, Jul '21</i>
<b>Anáhuac University Mexico, Mechatronics Engineering Department</b>	<i>virtual, Apr '21</i>
<b>Talking Robotics Seminar Series (video recording)</b>	<i>virtual, Mar '21</i>
<b>Robotics Portfolio Seminar</b>	<i>Austin, TX (remote), Oct '20</i>
<b>VU Amsterdam, Social AI group</b>	<i>Amsterdam, Netherlands (remote), May '20</i>
<b>University of Maryland, Baltimore County, Mechanical Engineering</b>	<i>Baltimore, MD (remote), May '20</i>
<b>University of Hamburg, Dept. of Informatics</b>	<i>Hamburg, Germany (remote), May '20</i>
<b>TU Delft, Interactive Intelligence Group</b>	<i>Delft, Netherlands (remote), April '20</i>
<b>Accessibility lunch @ CMU</b>	<i>Pittsburgh, PA, Mar '20</i>
<b>NAO User and Developer Congress</b>	<i>Boston, MA (remote), Feb '20</i>
<b>The Invisible Jazz Labs lecture series (science lecture x improvisational art forms)</b>	<i>Pittsburgh, PA, Feb '20</i>
<b>Robots and Autism Researcher Panel (organized by ChartaCloud Robotteca)</b>	<i>virtual, Jun '19</i>
<b>Priberam Machine Learning Seminars (organized by Priberam Labs)</b>	<i>Lisbon, Portugal, Apr '19</i>
<b>Hospital Garcia de Orta Child Development Center (presented by Marta Couto)</b>	<i>Almada, Portugal, Oct '18</i>
<b>National Meeting of Science and Technology (invited poster)</b>	<i>Lisbon, Portugal, Jun '18</i>
<b>Instituto Superior Técnico, Institute for Systems and Robotics, SIPg group</b>	<i>Lisbon, Portugal, Jun '17</i>
<b>IBM Research Cognitive Colloquium (invited poster)</b>	<i>Yorktown Heights, NY, Sep '16</i>
<b>Innovation with Impact @ CMU (invited poster)</b>	<i>Pittsburgh, PA, Apr '16</i>
<b>AUB FEA Student and Alumni Conference</b>	<i>Beirut, Lebanon, May '13</i>

## DEMOS

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Contributed to the preparation of numerous demos on several robotic platforms (CoBot, Baxter, NAO, Pepper, etc.), including for TV station representatives such as CBS News, National Geographic, and French TV; experts from industry and academia; city mayors; children and teenagers; and even the [White House](#).

## MEDIA COVERAGE

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<b>“AUB alumnus spotlight”</b>	<i>to appear</i>
Article series on the website of the American University of Beirut	
<b>“Robótica Social” (interview – in Spanish)</b>	<i>May '21</i>
Ain Tech podcast (Radio Anáhuac México)	
<b>“Embodied Interactions from Robotics to Dance” (interview)</b>	<i>Dec '20</i>
Robohub podcast	
<b>“Interactive Robots with ‘Autism-Like’ Behaviors” (interview)</b>	<i>May '19</i>
Versatilist podcast	



**“CMU students to compete in Robot Art 2016 contest”**

The Tartan, CMU’s Student Newspaper

*Dec ’15*

**“Vincent van Bot: the robots turning their hand to art”**

The Guardian

*Apr ’16*

**“Kim Baraka, yin et yang” (portrait, in French)**

L’Orient-Le-Jour, main French language Lebanese newspaper

*Aug ’15*

(more press articles mentioning my work on my [website](#).)

## **LANGUAGES**

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English (fluent), French (fluent), Arabic(fluent), Dutch (A2+ certification), European Portuguese (intermediate), Spanish (beginner).

## **ARTISTIC INVOLVEMENT**

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I have had and continue to have a very active involvement in the field of contemporary dance as a performer, teacher and creator. I started as a neoclassical dancer in the [Beirut Dance Company](#) and then as an improvisational dance artist in the [Pillow Projects](#). I regularly teach workshops at both professional and open levels. More information can be found on the [art section of my website](#) or on [my artistic CV](#).

## **REFERENCES**

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**References are available upon request.**