



Agnese Chiatti

 agnese.chiatti@open.ac.uk
 <https://achiatti.github.io>

 +44 07394 321316
 Level 4 South Wing, Berrill Building,
Milton Keynes MK7 6AA



I am a Research Assistant at the Knowledge Media Institute (the Open University, UK), working under the supervision of [Prof. Enrico Motta](#). I am also a Graduate Student in the College of Information Sciences and Technology (IST) at Penn State University, with [Prof. Prasenjit Mitra](#) as primary advisor.

My research interests lie in *Knowledge Engineering* from *multi-modal data sources*, with a main focus on visual and textual sources. I am currently working on tackling these areas for applications in *Robotics* and *Human-Robot Interaction* specifically.

EDUCATION

2016 – Present

Graduate Student in Information Sciences and Technology at PSU

Primary Advisor: Dr. Prasenjit Mitra

2012 – 2014

MS in Industrial Engineering and Management (IT minor) at Politecnico di Torino – Italy

Primary Advisor: Dr. Tania Cerquitelli

2009 – 2012

BS in Industrial Engineering and Management (IT minor) at University of Bologna – Italy

EMPLOYMENT

June '18 - Present	Research Assistant at KMI, the Open University, UK
Aug '16 – May'18	Research and Teaching Assistant at Penn State University
Jan '16 – Jun '16	Employee at Hera Group - R&D – Innovation - Italy
Jun'15 – Dec '15	Intern at Hera Group - R&D – Innovation - Italy
Feb '15 – Jun '15	Intern at CRIF - Business Analyst, UK Market - Italy
May '13 – Sep '13	Scholarship holder at Politecnico di Torino - Open Access Office – Italy

RESEARCH EXPERIENCE

- I am currently a Research Assistant at the Knowledge Media Institute (KMi - the Open University, UK), working on object detection and recognition from Robot-collected RGB and depth data, to ultimately map semantic concepts in space within a context-enriched Knowledge Base. I have worked under the supervision of [Prof. Enrico Motta](#), [Dr. Ilaria Tiddi](#) and [Dr. Emanuele Bastianelli](#).
- At KMi, I have collaborated with [Dr. Pinelopi Troullinou](#) to the final evaluation phase of the [Analytics for Everyday Learning \(AFEL\)](#) European project, aimed at investigating how users reach informal and collective learning through online platforms.
- **(2016- 2018)** During my first two years at Penn State, I have worked with [Dr Lee Giles](#) (IST) [Dr. Nilam Ram](#) (Human Development and Family Studies) at the [Screenomics](#) project, a collaboration with Stanford University. My work has been focused on implementing a Cloud-based infrastructure for text extraction and retrieval from digital screenshots (collected from human subjects' laptops and smartphones).
- **(2016 - 2017)** I have collaborated with [Dr. Jian Wu](#) and [Dr. Sagnik Ray Chodhoury](#) in the development of a scientific domain knowledge entity extractor, implementing a hybrid approach (supervised + unsupervised).
- **(2015 – 2016)** While working for an energy multi-utility, I have been part of a pilot project on energy consumption mappings, in a Smart City scenario.

- **(2014)** I have spent 2 months at Linköping University (Sweden), as part of my Master Thesis development, working under the supervision of [Prof. Patrick Lambrix](#) in the Division for Database and Information Techniques.



PUBLICATIONS

JOURNAL PAPERS

Reeves, B., Ram, N., Robinson, T.N., Cummings, J. J., Giles, L., Pan, J., **Chiatti, A.**, Cho, M.J. et al. [Screenomics: A Framework to Capture and Analyze Personal Life Experiences and the Ways that Technology Shapes Them](#). Accepted for publication in *Human Computer Interaction*.

CONFERENCE/ WORKSHOP PAPERS

2019

Chiatti, A., Bardaro, G., Bastianelli, E., Tiddi, I., Mitra, P. and Motta, E. [Exploring Task-agnostic, ShapeNet-based Object Recognition for Mobile Robots](#). To appear in *Proceedings of the 3rd International workshop on Data Analytics solutions for Real-Life Applications (DARLI-AP 2019)*. CEUR.

Bardaro, G., Semperebon, A., **Chiatti, A.**, and Matteucci, M. [From Models to Software Through Automatic Transformations: An AADL To ROS End-to-End Toolchain](#). To appear in *Proceedings of the Third International Workshop on New Frontiers in Computational Robotics (NFCR '19)*. IEEE.

2018

Chiatti, A., Cho, M. J., Gagneja, A., Yang, X., Brinberg, M., Roehrick, K., Choudhury, S. R., Ram, N., Reeves, B. and Giles, C. L. [Text Extraction and Retrieval from Smartphone Screenshots: Building a Repository for Life in Media](#). To appear in *Proceedings of the 33rd ACM/SIGAPP Symposium on Applied Computing (SAC 2018)*. Pau, France. April 9-13, 2018.

Yang, X., **Chiatti, A.**, & Ram, N. [The switch of digital-mediated behavior: From screenshots to switches](#). Association for Psychological Science, San Francisco, CA. May, 2018.

2017

Chiatti, A., Yang, X., Brinberg, M., Cho, M.J., Gagneja, A., Ram, N., Reeves, B., and Giles, C. L. [Text Extraction from Smartphone Screenshots to Archive in situ Media Behavior](#). In *Proceedings of the 9th International Conference on Knowledge Capture (K-CAP 2017)*. Austin, TX, USA. December 4-6, 2017.

Wu, J., Choudhury, S.R., **Chiatti, A.**, Liang, C. and Giles, C. L. [HESDK: A Hybrid Approach to Extracting Scientific Domain Knowledge Entities](#). In *Proceedings of the ACM/IEEE Joint Conference on Digital Libraries (JCDL 2017)*. 241-244. Toronto, ON, Canada, June 19-23, 2017.

2015

Chiatti, A., Dragisic, Z., Cerquitelli, T. and Lambrix, P. [Reducing the search space in ontology alignment using clustering techniques and topic identification](#). In *Proceedings of the 8th International Conference on Knowledge Capture (K-CAP 2015)*. Palisades, NY, USA, October 7-10, 2015.



PRE-PRINTS

Chiatti, A., Davaasuren, D., Ram, N., Mitra, P., Reeves B., and Robinson, T. [Guess What's on my Screen? Clustering Smartphone Screenshots with Active Learning](#). *ArXiv preprint*. In Review



PROGRAM COMMITTEE MEMBERSHIPS/ REVIEWING

- [DARLI-AP 2019](#): 3rd International workshop on Data Analytics solutions for Real-Life Applications.
- [TheWebConf 2019](#) (sub-reviewer): Web and Society Track at the 28th edition of the Web Conference series (formerly WWW).
- [DARLI-AP 2018](#): 2nd International workshop on Data Analytics solutions for Real-Life Applications.
- [DaS 2017](#): 1st International workshop on Data Science: Methodologies and Use-Cases.
- [ICDAR 2017](#): The 14th IAPR International Conference on Document Analysis and Recognition (sub-reviewer)



TEACHING ASSISTANSHIPS

- (Spring 2018) **IST 441** specialty class on **Information Retrieval and Search Engines** offered to senior undergraduate and graduate students.
- (Fall 2016) **IST 210** sophomore-level required class on **Organization of Data**.



AWARDS AND SCHOLARSHIPS

Received the Christine Collet EDBT/ICDT Student Participation Award to attend [the 22nd International joint EDBT/ICTD conference](#), to be hold on March 25-29, 2019, in Lisbon, Portugal.

Selected to participate in the [2018 CRA-W Grad Cohort workshop](#) on April 12-14, 2018 in San Francisco, CA.



TECHNICAL SKILLS

Object-oriented programming: Python +{numpy and Tensor operations}, Java + {Java in Android SDK}, C++, R, Matlab.

Image Processing: OpenCV

Machine Learning: Scikit-learn, Pytorch and Keras for Deep Learning.

Robotics: Robot Operating System (ROS), rosbag data/logs manipulation in Python.

Data Analysis: SQL (SQLServer), MongoDB, Excel VBA, MS Access, RapidMiner.

Information Retrieval: Apache Solr + ElasticSearch Lucene, Heritrix (Web crawling).

Ontologies: RDF, OWL format, JSON for Linked data (JSON-LD).

GIS: Esri ArcGIS, QGIS.

Web Design: HTML, CSS, Django, SQL+PHP, Javascript

Cloud Systems: Google Cloud (storage, gsutil package, mounted partition integration, UNIX-based Virtual Machine setup and package installations), building Docker images for remote servers (CPU and GPU environments).

Functional testing: Selenium (Web) and SoapUI (A2A).



REFERENCES

Prof. Prasenjit Mitra, Associate Dean for Research and Professor, The Pennsylvania State University, University Park, PA. Email: pmitra@ist.psu.edu , Phone: +1 (814) 865 2379

Prof. Enrico Motta, Professor of Knowledge Technologies, Knowledge Media Institute, the Open University, Milton Keynes, UK. Email: enrico.motta@open.ac.uk, Phone: +44 (0)1908 653506

Prof. Nilam Ram, Professor, Human Development and Family Studies, and Psychology, The Pennsylvania State University, University Park, PA. Email: nur5@psu.edu , Phone: +1 (814) 865 7038

Dr. Ilaria Tiddi, Research Associate, Vrije Universiteit Amsterdam, The Netherlands. Email: i.tiddi@vu.nl

Dr. Emanuele Bastianelli, Research Associate, Heriot-Watt University, Edinburgh, United Kingdom. Email: emanuele.bastianelli@hw.ac.uk

Prof. C. Lee Giles, David Reese Professor, The Pennsylvania State University, University Park, PA. Email: giles@ist.psu.edu , Phone: +1 (814) 865-7884

Dr. Tania Cerquitelli, Assistant Professor, Politecnico di Torino, Torino, Italy. Email: tania.cerquitelli@polito.it , Phone: (+39) 011 090 7178