

Vittorio Perera

Current Address: 900 High School Way, 94041 Mountain View CA
Permanent Address: 20 Via Cavour, 01017 Tuscania ITALY
E-mail: vittorio.perera@gmail.com
Phone: +1 (412) 608 7560

WORK EXPERIENCES

NLP Research Scientist

Tenyx, Inc.

Palo Alto, California, US

Develop algorithms and design software architectures that implement a novel machine learning framework developed by Tenyx.

Date: July 2022 - Present

Applied Scientist

Amazon - Lab 126

Sunnyvale, California, US

Worked on Alexa Conversation a deep learning-based approach to dialog management to enable developers to create natural, human-like voice experiences on Alexa. Focused on enabling the automated generation of Alexa prompts.

Date: November 2018 - June 2022

Applied Scientist Intern

Amazon - Lab 126

Sunnyvale, California, US

Improved the semantic parsing ability for the Alexa voice assistant. The focus of the work was on designing, training and evaluating deep-learning models to parse user utterances into Alexa Meaning Representation Language (AMRL).

Date: May-August 2017

Research Summer Intern

IBM T.J. Watson Research Center

Yorktown Heights, New York, US

Designed and developed the Human-Robot Interface for a Pepper Robot. This included connecting the robot with several IBM services (e.g., speech recognition, face recognition), designing the robot dialog model, and developing the web interface displayed on the robot chest tablet.

Date: May-August 2016

Private Tutor

Rome, Italy

Subjects taught: Physics, Math, Programming Languages

To: College, High School and Middle School Students

Date: 2009-2012

EDUCATION

Carnegie Mellon University

Pittsburgh, Pennsylvania, US

Ph.D in Computer Science (2018)

Thesis Title: *"Language-Based Bidirectional Human and Robot Interaction Learning for Mobile Service Robots"*

Advisor: Manuela Veloso

Sapienza University

Rome, Italy

M.Sc. in Artificial Intelligence and Robotics (2013)

Thesis Title: *"Talking Robots: Voice User Interfaces For Human-Robot Interaction."*

Final Grade: 110/110 *cum laude*

Sapienza University

Rome, Italy

B.E. in Computer Engineering (2009)

Thesis Title: *"Parsing and Analysis of Medical Prescriptions"*

Final Grade: 101/110

SELECTED PUBLICATIONS

Schema-Guided Natural Language Generation

Authors: Yuheng Du, Shereen Oraby, Vittorio Perera, Minmin Shen, Anjali Narayan-Chen, Tagyoung Chung, Anu Venkatesh, Dilek Hakkani-Tur
Proceedings of the 13th International Conference on Natural Language Generation (INLG), 2020

Multi-Task Learning For Parsing The Alexa Meaning Representation Language

Authors: Vittorio Perera, Tagyoung Chung, Thomas Kollar, Emma Strubell.
Proceedings of the AAAI Conference on Artificial Intelligence, 2018

Learning to Understand Questions on the Task History of a Service Robot

Authors: Vittorio Perera, Manuela Veloso
IEEE International Symposium on Robot and Human Interactive Communication (RO-MAN), 2017

Dynamic Generation and Refinement of Robot Verbalization

Authors: Vittorio Perera, Sai Prabhakar Selveraj, Stephanie Rosenthal, Manuela Veloso
IEEE International Symposium on Robot and Human Interactive Communication (RO-MAN), 2016

Learning Task-Relevant Environmental Knowledge from Human-Robot Dialog and the Web

Authors: Thomas Kollar, Robin Soetens, Vittorio Perera, Mehdi Samadi, Yichao Sun, Daniele Nardi, René van de Molengraft, Manuela Veloso
Robotics, 2015

Kernel-based Discriminative Re-ranking for Spoken Command Understanding in HRI

Authors: Roberto Basili, Emanuele Bastianelli, Giuseppe Castellucci, Daniele Nardi, Vittorio Perera
*AI*IA 2013 : Thirteenth Conference of the Italian Association for Artificial Intelligence*

Knowledgeable Talking Robots

Authors: Luigia Carlucci Aiello, Emanuele Bastianelli, Luca Iocchi, Daniele Nardi, Vittorio Perera, Gabriele Randelli
Sixth Conference on Artificial General Intelligence, 2013

Learning Environmental Knowledge from Task-Based Human-Robot Dialog

Authors: Thomas Kollar, Vittorio Perera, Daniele Nardi, Manuela Veloso
International Conference on Robotics and Automation, 2013

OTHER RESEARCH EXPERIENCES

Speaky For Robots

Speaky for Robot is a project funded by the European Community, led by professor Daniele Nardi. The goal is to foster the definition and deployment of voice user interfaces in robotic applications where human-robot interaction is required.
<http://www.echord.info/wikis/website/speaky>

LANGUAGES

Italian - Native
English - Fluent
French - Basic