Alvise Memo *Curriculum Vitae*

Personal Information
Address: Palo Alto (USA) 94303
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FIELD OF INTEREST

Machine learning, Computer vision, Human-computer interactions, Virtual and Augmented reality, Artificial intelligence, 3D Graphics and fast real-time algorithms.

EDUCATION

Master in Computer Engineering, Informatics Engineering   October 2013- September 2015
University of Padova, Padova, ITALY Data and algorithms 2, Linear programming, 3D data elaboration, Strategic organizations management
Thesis - *Multi-modal head mounted vision system with gesture interface*

(Erasmus Program) *Master in Innovation and Research in Informatics*   October 2013- September 2014
Universitat Politecnica de Cataluna, Barcelona, SPAIN
Algorithmic Methods for Mathematical Models, Concurrence, Parallelism and Distributed Systems, Fast Realistic Rendering, Computer Networks, Stochastic Network Modelling, Cloud Computing, Machine Learning, Operating Systems, Requirements Engineering for Services

Bachelor Degree in Information Engineering   October 2010- July 2013
University of Padova, Padova, ITALY
Computers architecture, Linear algebra and geometry, Mathematical analysis, Informatics fundamentals, General Physics, Data and algorithms 1, Theoretical informatics, Autonomous Controls, Systems and Models, Electronics, Telecommunications, Digitals Electronics, Artificial Intelligence.
Thesis - *Data acquisition with cameras and ToF sensors*

PROFESSIONAL EXPERIENCE

Software engineer, Machine learning research   October 2017 - Present
Aquifi, Palo Alto, USA
- Anomaly detection in highly unbalanced datasets.
- Data label tools creation for difficult and fuzzy targets

Machine learning consultant   May 2016 - September 2017
Aquifi, Palo Alto, USA
- Software for automatic object recognition and object retrieval using deep neural networks.
- Deployment of ML based system on the cloud.
- Synthetic data generation combined with transfer learning for real world problem solving.

Visiting researcher   November 2016 - September 2017
CogSys Laboratory, University of Bamberg, GERMANY
- Machine learning algorithms for scene understanding, human relations and automatic learning.

Assistant researcher   October 2015 - April 2016
LTTM Laboratory, University of Padova, ITALY
- Developing an android application for mobile feature detection and description, with compression before unsynchronized transfer.
- Real time 3D reconstruction and localization (SLAM) from remote mobile device.
- Researching improvements for feature matching performance and reliability.

Waiter - Bartender   Summer 2012
Piccolino (21 Heddon Street, Mayfair, London (UK)
- Improvement of english language.

PUBLICATIONS
- "Impact of Drone Swarm Formations in 3D Scene Reconstruction";
  S.Milani and A.Memo; ICIP 2016
- "Head-Mounted Gesture Controlled Interface for Human-Computer Interaction";
  A.Memo and P.Zanuttigh; MTAP, Multimedia Tools and Applications
- "Exploiting Silhouette Descriptors and Synthetic Data for Hand Gesture Recognition";
  A.Memo, L.Minto and P.Zanuttigh; STAG: Smart Tools and Apps for Graphics (2015)

AWARDS
- Best Demo Award at the 6th GTTI (National Telecommunications and Information Theory Group) Thematic Meeting on Multimedia Signal Processing 2016, for the demo: Head-Mounted Gesture Controlled Interface for Human-Computer Interaction

PROJECTS AND EXTRAS
- Participated and HUB organizer at the 2016 and 2017 Google HashCode Challenge
- Attended the online course by Ph.D Sebastian Thrun and Ph.D Peter Novig provided by Stanford University in the academic year 2011-2012
- Graphic software, cross-platform and with Matlab interface, for generating hand pose dataset, with a high polygon model, different shaders possibilities and custom textures. Standalone software. Demo at: *http://lttm.dei.unipd.it/downloads/handposegenerator*
- Unsupervisioned path planning and environment mapping for intelligent floor cleaning with cheap sensors and Arduino controller
- Optical flow for slow-motion high resolution videos
- Virtual and Augmented Reality headset and software for controlling windows with a head mounted display: gesture recognition is used for the control of the virtual displays.
- Experience with Amazon and Tencent cloud based objects recognition
- Fully functional object retrieval system with single shot learning
- H1-B visa for US based work.

LANGUAGES
- Italian (Native)
- English (Fluent)
- Spanish (Fluent)

INTERESTS
I'm a guitar player, been singing in a acapella chorus. Love nature, been Boy-Scout for a long time. Mechanic and car enthusiast, love to work on moped and old cars when free time allows. Football is a nice passion. I've also been a pizza-maker for 4 years and a half during high-school and first years of college, and I'm in love with pizza!