

ROLDANO CATTONI

Curriculum Vitae et Studiorum

31/12/2009

PERSONAL DATA:

- Born in Trento (Italy), on August 25th, 1964
- Nationality: Italian; marital status: single
- Good in English (reading and writing); basic in German (reading and writing)
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EDUCATION:

- Laurea (Master) degree in Computer Science, University of Milan (I), October 11th, 1989. Mark: 110/110 cum laude. Dissertation title: *“Rappresentazione di Concetti ed Interazione con l’Utente in KRAPFEN”*. Supervisor: Dr. Oliviero Stock (ITC-irst). Advisor: Prof. Gianni Degli Antoni.
- Maturità classica (High School), Liceo Classico *Istituto Pareggiato Arcivescovile di Trento* (I), July 1983. Mark: 56/60.

CURRENT RESEARCH INTERESTS:

- Human Language Technologies: Statistical Machine Translation, Linguistic Resources.
- Software Architectures: management of cluster of HPC machines, distributed large-data computation, Web-based tools for systems and demonstrators, interprocess communication.

PROFESSIONAL EXPERIENCE:

- **October 2007 – present: human language technologies at FBK.**
With the transformation of ITC-irst into Fondazione Bruno Kessler (FBK), the new research unit *HLT* (Human Language Technology) inherited the previous activities of Automatic Speech Recognition, Machine Translation and Content Processing. Within the HLT research unit at FBK ITC-irst, he has been working in different areas: Statistical Machine Translation (developer of SMT systems, participant to international evaluation campaigns such as NIST MT Eval and IWSLT), linguistic resources (FBK reference person for the LDC resources), architectures for demonstrators (developer of Web-based interfaces and services for SMT and ASR systems), infrastructures for distributed computation (FBK reference person for the FBK cluster of HPC machines, manager of the cluster job scheduler SGE, manager of distributed large-data software packages such as Hadoop and HBase). He has been working on several projects related to HLT: *JUMAS* (European), *LiveMemories* (Major Projects of the Autonomous Province of Trento, with international partners), *ATLAS* (Italian). Responsible of the Work-Package 4 *Content Management Platform* of the *LiveMemories* project.
- **March 2000 – September 2007: speech-to-speech translation at ITC-irst.**
Within the Hermes research line at ITC-irst, he was working in several projects related to speech translation with statistical methods: *Nespole!* (Euro-American), *SI-TAL* (Italian) and the European *PF-STAR*, *FAME* and *TC-STAR*. Internal responsible of the *FAME* project from 1st October 2001 to 31st March 2003. Participant to international evaluation campaigns of Machine Translation systems such as NIST MT Eval and IWSLT. Member of the Evaluation Committee of the IWSLT-2007 Workshop. Reference person for the cluster of HPC machines of the Hermes research line.

- **June 1998 – February 2000: distributed and agent systems at ITC-irst.**

Joining the software engineering group, he was working in the field of distributed and agent systems. He collaborated to the definition of the FIPA standard for agent systems. Within the *FACTS* European project, he contributed to the realization of the AVEB (Audio Video Entertainment and Broadcasting) system, winner of the FIPA 2000 Application Competition.

- **January 1995 – May 1998: image processing and probabilistic graphical models at ITC-irst**

In August 1995 he was hired by ITC-irst as Researcher (Ricercatore Prima Fascia - R1) after three positive years as Junior Researcher. With the end of the robotics at ITC-irst, he moved to the image processing group, working in the field of distributed applications such as surveillance and document understanding. Moreover he was working on probabilistic graphical models, in particular Bayesian Belief Networks. He attended the Probabilistic Graphical Models/ EC Summer School, 31 Aug - 6 Sept 1997, Cambridge (UK).

- **January 1990 – December 1994: robotics at ITC-irst**

From January 1990 to August 1992 he was consultant Researcher in the Artificial Intelligence Division of ITC-irst. In August 1992 he was hired by ITC-irst as Junior Researcher (Ricercatore Straordinario - RE) after winning a public selection in July 1992. In January 1990 he joined the robotics group, working on in the field of planning and control for five years. In addition to scientific publications, he performed several demonstrations for visitors and press with the developed mobile platforms. In October 1991 he attended the Summer School XII scuola GNCB - CNR 'Metodi Matematici per l'Analisi di Immagini' in Genova (I).

- **October 1988 – December 1989: master thesis at ITC-irst**

He was carrying on his master thesis work in the field of Knowledge Representation within the NLP (Natural Language Processing) group at ITC-irst (Istituto per la Ricerca Scientifica e Tecnologica, Trento, Italy). The so-called KRAPPEN system was analyzed and formalized, making explicit its features and exploring possible extensions, by means of the definition of appropriate frame-based description languages. Moreover, the deductive engine of the system was fixed and enriched on the basis of the theoretical results. Finally, an effective and efficient user interface was implemented.

WORK TOOLS:

- Programming Languages: Perl, Python, Shell, C, C++, Java, Emacs-Lisp, TclTk, Lisp, Pascal, Basic, Assembler.
- Operating Systems: Unix. Basic skills on Windows and MacOS.