

# Camille Guinaudeau

INRIA - Campus de Beaulieu  
35 042 Rennes CEDEX  
FRANCE

**Tel:** +33 2 99 84 25 93

**Email:** [Camille.Guinaudeau@irisa.fr](mailto:Camille.Guinaudeau@irisa.fr)



## Education

- 2011 - 2012**      **Teaching assistant at University of Rennes1**
- 2008 - 2011**      **PhD candidate**  
INSA/INRIA (Rennes)  
Dissertation title: **Automatic structuring and enrichment of TV stream**  
Defended in December 2011  
Advisors: Pr. Pascale Sébillot and Guillaume Gravier
- 2007- 2008**      **Master of Advanced Study in Computer Science**  
University of Caen Basse-Normandie (Caen)  
*Summa cum Laude*, Graduated as top of my class  
Thesis title: **Automatic control of TV content**
- 2006 - 2007**      **M. Sc. in Computer Science**  
University of Caen Basse-Normandie (Caen)  
*Magna cum Laude*, Graduated as top of my class
- 2003 - 2006**      **B. Sc. in Computer Science**  
University of Lyon 1 (Lyon)  
Exchange student at the University of Ottawa (Ontario, Canada) for 10 months

## Research Experience

### Topics

- Natural Language Processing
- Information Retrieval
- Automatic Speech Recognition

### Automatic structuring of TV streams

*PhD work*

**Advisors:** Pr. Pascale Sébillot and Guillaume Gravier

The goal of my PhD is to develop automatic techniques based on speech to enable fine structuring of TV stream. The structuring task is divided into two main steps: topic segmentation and characterization. The topic segmentation step aims to segment TV programs extracted from the stream into thematically coherent TV segments (news reports for example). The characterization step serves to inform users about the content of (segments of) TV programs. It is also useful to link together topic segments that address the same topic. To accomplish this structuring goal, speech is accessed by means of automatic transcriptions of speech contained in TV programs. Then NLP methods are applied on these transcripts. These methods are mainly based on lexical information but additional clues specific to spoken documents (such as confidences measures associated with transcripts and acoustic clues) are used to adapt NLP techniques to speech specificities (transcription errors, lack of vocabulary repetition).

## Technical Skills

**Programming languages:** Perl, JAVA, C/C++, Prolog, SCHEME, SQL

**Operating systems:** Linux, Windows, MacOS

**Methods:** Statistical and probabilistic methods for Natural Language Processing, Information Retrieval, Data Mining.

## Publications

### Journal papers

Guillaume Gravier, Camille Guinaudeau, Gwénoél Lecorvé, Pascale Sébillot. **Exploiting speech for automatic TV delinearization: From streams to cross-media semantic navigation.** *EURASIP Journal of Image and Video Processing*, 2011(0), 2011.

Camille Guinaudeau, Guillaume Gravier, Pascale Sébillot. **Enhancing lexical cohesion measure with confidence measures, semantic relations and language model interpolation for multimedia spoken content topic segmentation.** *Computer Speech and Language*, 2011.

### International conferences

Julien LawTo, Jean-Luc Gauvain, Lori Lamel, Gregory Grefenstette, Guillaume Gravier, Julien Despres, Camille Guinaudeau, Pascale Sébillot. **A scalable video search engine based on audio content indexing and topic segmentation.** In *4th Annual Conference NEM Summit*, Turin, Italy, September 2011.

Camille Guinaudeau, Julia Hirschberg. **Accounting for prosodic information to improve ASR-based topic tracking for TV Broadcast News.** In *12th Annual Conference of the International Speech Communication Association, Interspeech'11*, Florence, Italy, August 2011.

Camille Guinaudeau, Guillaume Gravier, Pascale Sébillot. **Improving ASR-based topic segmentation of TV programs with confidence measures and semantic relations.** In *11th Annual Conference of the International Speech Communication Association, Interspeech'10*, Makuhari, Japan, September 2010.

Camille Guinaudeau, Guillaume Gravier, Pascale Sébillot. **Can Automatic Speech Transcripts be Used for Large Scale TV Stream Description and Structuring?.** In *1st International Workshop on Content-Based Audio/Video Analysis for Novel TV Services, CBTV'09, In conjunction with the International IEEE Symposium on Multimedia, ISM'09*, San Diego, CA, USA, December 2009.

## Teaching Experience

**2010 – 2011 Teaching assistant at University of Rennes 1 - 10 hours**  
Information retrieval in textual documents (M. Sc. level) - 10 hours

**2009 – 2010 Teaching assistant at INSA, Rennes - 80 hours**  
Databases (B. Sc. level) - 30 hours  
Introduction to programming with language C (B. Sc. level) - 14 hours  
Introduction to object-oriented programming with JAVA (B. Sc. level) - 36 hours

**2008 – 2009 Teaching assistant at INSA, Rennes - 47 hours**  
Databases (B.Sc. level) - 28 hours  
Introduction to algorithmic with SCHEME (B. Sc. level) - 9 hours  
Advanced programming with JAVA (B. Sc. level) - 10 hours

## Related Activities

Member of the Organization committee for the Young Researchers Scientific Day on Measure, Modelling, and Simulation, INSA, Rennes, 23 June 2011

Supervised M.Sc. student. Thesis title: “Combining local and global approaches for topic segmentation in spoken TV contents”. June-July 2011

## Miscellaneous

**Languages** French (native), English (fluent)

**Membership** Secretary of ADOC student society at INRIA-Rennes, 2008-2009

**Social involvement** Volunteer mentoring of computer literacy workshops for social integration, Association EPI « les jardins du Breil », Rennes, 2011

**Sports** Swimming, Running