

# Onkar Pandit

PhD in Computer Science

in oapandit

oapandit

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## Summary

Passionate NLP and ML researcher with scientific publications at top conferences. Sound understanding of NLP, ML concepts with proficiency in implementing algorithms with Python and frameworks (tensorflow, keras). Have rich software development experience of ~4 years at a reputed firm. Possess excellent verbal and written communication skills.

## Education

### University of Lille

PhD in Computer Science

Dec. '17 – Sept. '21

Lille, France

- > The research was focused on improving representations of linguistic objects by using both knowledge graph based embeddings as well as text-based embeddings.
- > Dissertation: Integrating Contextual and Commonsense Information for Automatic Discourse Understanding: Contributions to Temporal Relation Classification and Bridging Anaphora Resolution.
- > Advisors: Pascal Denis, Liva Ralaivola, and Marc Tommasi

### Indian Institute of Technology (IIT), Kanpur

M.Tech in Electrical Engineering

Jul. '10 – Jul. '12

Kanpur, India

- > Specialization: Signal processing and Communication networks.
- > Thesis: Effect Of Cyclic Frequency Estimation Error and Timing Mismatch On Cyclostationary Detection Of Frequency Hopping Signal.
- > GPA: 7/10

### Shri Gurugobind Singhji Institute of Engineering and Technology

B.Tech in Electronics and Telecommunications Engineering

Jul. '06 – May '10

Nanded, India

- > Courses: Data Structures and Algorithms, Calculus, Multivariable Calculus, Control Systems.
- > GPA: 8.37/10

## Experience

### Indian Statistical Institute, Kolkata

Project Scientist

Jul. '16 – Nov. '17

Kolkata, India

- > Designed and developed a CNN based neural architecture for *close-domain* multiple choice question-answering (QA).
- > Proposed approach produced competent results over standard QA dataset (published in ACL'18).
- > Developed neural network based architecture for lemmatization that achieved new state-of-the-art results over many languages: Catalan, Dutch, Hindi, Hungarian, Italian, Latin, Romanian and Spanish (published in ACL'17).
- > Proposed SVM based model to predict difficult words in a document from a readers' eye gaze data (published in ICDAR'17).

## Oracle India Pvt. Ltd.

Senior Member Technical Staff

Member Technical Staff

Bangalore, India

Mar. '16 – Jun. '16

Jul. '12 – Feb. '16

- › Contributed to the product development of Oracle Big Data Preparation Cloud Service (BDP).
- › Worked as a part of the infrastructure provisioning team.
- › Developed various tools to enhance the productivity of team.
- › Contributed to the development of Oracle WebCenter Portal product, specifically, Portal Security, and services like Notifications, Notes, Relations. Also, improved test automation framework to effectively catch bugs.

## Publications

- › **Probing for Bridging Inference in Transformer Language Models.**  
**Onkar Pandit**, Yufang Hou.  
*North American Chapter of the Association for Computational Linguistics 2021 (NAACL 2021).*
- › **Integrating knowledge graph embeddings to improve mention representation for bridging anaphora resolution.**  
**Onkar Pandit**, Pascal Denis, Liva Ralaivola.  
*Workshop on Computational Models of Reference, Anaphora and Coreference, COLING 2020.*
- › **Learning Rich Event Representations and Interactions for Temporal Relation Classification.**  
**Onkar Pandit**, Pascal Denis, Liva Ralaivola.  
*European Symposium on Artificial Neural Networks (ESANN-2019).*
- › **CNN for Text-Based Multiple Choice Question Answering.**  
Akshay Chaturvedi, **Onkar Pandit**, Utpal Garain.  
*Association for Computational Linguistics (ACL-2018).*
- › **Context Sensitive Lemmatization Using Two Successive Bidirectional Gated Recurrent Networks.**  
Abhisek Chakrabarty, **Onkar Pandit**, Utpal Garain.  
*Association for Computational Linguistics (ACL-2017).*
- › **Identification of Reader Specific Difficult Words by Analyzing Eye Gaze and Document Content.**  
Utpal Garain, **Onkar Pandit**, Olivier Augereau, Ayano Okoso, Koichi Kise.  
*International Conference on Document Analysis and Recognition (ICDAR-2017).*

## Awards and Achievements

- › Oracle Webcenter best employee'16 *Numero Uno* award.
- › Part of 'Oracle Webcenter Best Team'16' award winning group.
- › Postgraduate study fellowship by Ministry of Human Resource Development, India, in 2010.
- › Out of 100,000+ aspirants achieved 310 rank in Graduate Aptitude Test in Engineering 2010.

## Apart from Work

- › **Cycling** Three 500+ km and numerous 200+ km rides. In Dec. '12, cycled from Pune-Goa (500km), in Dec. '13 Kozhikode-Kanyakumari (700km) and in Dec.'14 Bangalore-Sringeri-Mangalore (500km).
- › **Trekking** Trekged in Himalayan ranges of India, Nepal and Bhutan, also in Western Ghats in India.
- › **Running** Ran numerous 10km runs and 4 Half Marathons.
- › **Event Organization** Served as President of Maharashtra Mandal, IIT Kanpur and organized cultural events and public gatherings. Also, organized and taken part in knowledge sharing sessions at Oracle.

## Skills

- › **Computer Languages** Python, Java (previously worked),  $\text{\LaTeX}$ .
- › **Frameworks** Tensorflow, Keras, scikit-learn, and nltk.
- › **Human Languages** *Native:* Marathi, Hindi, *Proficient:* English, *Beginner:* French, Bengali, Kannada, Telugu.