



# Renukswamy Chikkamath

*Curriculum Vitae* December 30, 2025

## Personnel Data

- Date of Birth: 02/08/1989
- Place of Birth: Neeralagi, India
- Address: Ringstr. 5, 94121 Salzweg
- Contact Number: +49 17658863204

## Education

- March 2023 to Till date **Ph.D. Candidate**, *University of Applied Sciences Munich, Munich, Germany, Patent analysis.*
- Oct 2020 to March 2023 **Ph.D. Student**, *University of Passau, Passau, Germany, Patent analysis.*  
Explore and develop patent-specific AI algorithms to foster patent information retrieval and automate routine prior art search by identifying the novelty of inventions
- Oct 2016 to Feb 2019 **M.Sc.**, *University of Passau, Passau, Germany, Master Thesis with 1.7 and overall 2.2 GPA grade.*  
Specialized in Computer Science
- 2013-2015 **Master of Technology**, *Siddaganga Institute of Technology, Tumkur, India, CGPA - 8.69 out of 10.*  
Specialized in Computer Science and Engineering

## Experience

- March 2023 to Till date **Research Assistant**, *Faculty of Computer Science and Mathematics, University of Applied Sciences Munich.*
- Sep 2019 to March 2023 **Research Assistant**, *Chair of Data and Knowledge Engineering and Chair of Intelligent Systems, University of Passau, Germany.*
- Sep 2019 to March 2022 **Teaching**, *Deep Learning, Preference based Information Retrieval, Complex Engineering Systems, and Web Science also supervise master thesis students.*
- Apr 2019 to July 2019 **Machine Learning Engineer**, *Rfrnz GmbH, Berlin, Germany.*
- Sept 2018 to Nov 2018 **Artificial Intelligence Engineer**, *Digital product school by Unternehmertum, at IBM Watson, Munich, Germany.*

Jul 2014 to Feb 2016 **Research Project Intern**, *Research and Technology Centre, Robert Bosch, Bangalore, India* .  
2012 to 2013 **Java Developer** , *NIIT, Bangalore, India* .

## Publications

- Title **Renukwamy Chikkamath; Linda Andersson; Markus Endres**, "Patent Retrieval with Few-Shot Fine-Tuning and Quantized Embeddings", *ICAAI (ACM), Manchester, London, 2025* .  
Published in ICAAI
- Title **Renukwamy Chikkamath; Linda Andersson; Markus Endres**, "Rethinking Patent Retrieval with Language Models: Toward Scalable and Efficient Search", *World Patent Information, December 2025, Elsevier* .  
Published in WPI
- Title **Eleni Kamateri; Michail Salampasis; Renukwamy Chikkamath; Linda Andersson; Markus Endres**, "Enhancing Patent Retrieval Using Automated Patent Summarization", *2025-07-27 / Italy, PatentSemTech2025 (SIGIR 2025)*.  
Published in PatentSemTech
- Title **Renukwamy Chikkamath, Ankit Sharma, Christoph Hewel, Markus Endres**, "ChatGPT vs. Google Gemini: Assessing AI Frontiers for Patent Prior Art Search Using European Search Reports ", *May 26th, 2024 / Hersonissos, Greece held at ESWC 2024*.  
Published in SemTech4STLD
- Title **Renukwamy Chikkamath, Zahra Esmaeili, Markus Endres**, "Decoding Health Informatics Patents: Investigating Topic Models for Patent Information Retrieval ", *HINT24, LNNS, Springer, March 2024, India*.  
Published in HINT24
- Title **Renukwamy Chikkamath, Rana Fassahat Ali, Christoph Hewel, Markus Endres**, "Explainable Artificial Intelligence for Highlighting and Searching in Patent Text ", *PatentSemTech23, SIGIR, July 27th, 2023, Taipei, Taiwan*.  
Published in PatentSemTech
- Title **Renukwamy Chikkamath, Deepak Rastogi, Mahesh Maan, Markus Endres**, "Is your search query well-formed? A natural query understanding for patent prior art search ", *World Patent Information, March 2023, Elsevier*.  
Published in WPI
- Title **R. Chikkamath, Vishvapalsinhji Ramsinh Parmar, Y. Otiefy and M. Endres**, "Patent Classification Using BERT-for-Patents on USPTO ", *Proceedings of the 5th International Conference on Machine Learning and Natural Language Processing (MLNLP 22), December 23-25, 2022, Sanya, China. (ACM)*.  
Published in MLNLP
- Title **R. Chikkamath, Vishvapalsinhji Ramsinh Parmar, C. Hewel and M. Endres**, "PaSA: A Dataset for Patent Sentiment Analysis to Highlight Patent Paragraphs", *International Conference on Artificial Intelligence and Law, from WASET 2022 (ACM), Singapore*.  
Published in ICAIL
- Title **R. Krestel, R. Chikkamath, Ch. Hewel, and J. Risch**, "A Survey on Deep Learning for Patent Analysis ", *World Patent Information, Elsevier*.  
Published in WPI
- Title **R. Chikkamath, M. Endres, L. Bayyapu, and Ch. Hewel**, "An empirical study on patent novelty detection: a novel approach using machine learning and natural language processing", *Advances in Natural Language Processing-ANLP2020*.  
Published in IEEE digital library

Title **"Concept Detection and Cluster analysis from News feed -A Singular value Decomposition based Approach"**.  
Published in **Chikkamath, Renukswamy C., and B. Sathish Babu. "Concept detection and Cluster Analysis from Newsfeed-Singular value decomposition based Approach." In 2016 2nd International Conference on Computational Intelligence and Networks (CINE), pp. 130-135. IEEE, 2016.**  
IEEE digital library

## Volunteer Experience

EPO CodeFest **EPO, Germany, Participated in EPO Codefest 2024, selected as Top 6 Finalist .**  
Hackday **Google, Munich, Germany, Participated in Hackday event by Google in support to the project done at DPS, Munich .**  
Tech summit **IBM Watson, Munich, Germany, Open Information Extraction technical summit at IBM Watson .**  
Apache kafka **Google, Munich, Germany, Apache kafka meet up at Google. .**  
Autonomous Driving Cars **Microsoft, Munich, Germany, Workshop on "Recent developments in Autonomous driving" by Microsoft .**  
Design Process **DesignIT, Munich, Germany, Workshop on the Design process by DesignIT .**  
Lean Canvas **DieProductMacher, Munich, Germany, Lean Canvas development workshop by DieProductMacher .**

## Research Interest

- Patent analysis
- Text Mining, Text Analytics
- Natural language processing
- Domain specific language models and embeddings
- Information retrieval, Machine learning
- Sentimental analysis and semantics

## Training and courses

DJVT **Diploma, Oracle 10g, Core java, Adv Java Jsp, Servlets, Struts, Ejb, from NIIT Jayanagar, Bangalore, India .**  
EMC2 **Storage management, Storage area networks .**  
Infosys **Tech course, Technical foundation program .**

## Technical skills

Frameworks Tensorflow, Keras, PyTorch  
Interested Pre-trained language models, Transformers, Applied ML  
Libraries NLTK, Gensim, Keras, Scikit-learn, Numpy, Pandas, Matplotlib, Scipy, Apache softwares, JAMA, RestFB, Facebook Graph API, Twitter API, Stanford NLP, Twitter4j, coreNLP, Spacy.

Programming Languages Basics of C and C++, More familiar with Java and Python

Programming Environment Eclipse, NetBeans, Pycharm, Spyder, Jupyter notebook and Lab, Google colab

## Projects

Master thesis **Identification and contextualization of n-ary arguments for Open Information extraction**, April 2018 to Jan 2019 at University of Passau.

Project-1 **Aspect Based Sentimental Analysis**, March 2017 to May 2017 at University of Passau.

Project-2 **Multimedia Database Project**, June 2017 to Sept 2017 at University of Passau.

Project-3 **Sentimental Analysis and Semantic Extraction from Text Corpus**, Research and technology center, Robert Bosch, Bangalore.