

ATHIRA.U

Masmaram,Sasthamangalam,Thiruvananthapuram ◇ Kerala, India 695010

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CAREER OBJECTIVE

A sanguine research scholar with substantial logical skills and urge for knowledge. A passionate explorer with robust experience in text processing. Career objective is to be a consummate professional in the Academic sector and to learn and contribute to the growth of the organization and self by leveraging my engineering skills and analytic capabilities

EDUCATION

University of Kerala, Trivandrum

2018(Expected)

Ph.D in Computer Science & Engineering

Research Area is Applying Authorship Analysis in Online Social Media

Professional Member of ACM

IEEE Student Member

IEEE Computational Intelligence Society Member

Gate 2011 Score: 92 percentile

Received SPEED-IT Scholarship for year 2013-2016

Submitted thesis

Amrita Vishwa Vidyapeetham, Kollam

August 2012

M. Tech. in Machine Learning, Computer Science & Engineering

M. Tech thesis is Improved Document Classification for an E-Learning Environment through Enhanced Naive Bayes algorithm.

Overall GPA: 8.0

University College of Engineering Kariavattom, Kerala University

May 2009

B. Tech. in Information Technology

Overall GPA: 7.14

ACADEMIC & RESEARCH EXPERIENCE

Indian Institute of Information Technology and Management-Kerala SPEED-IT Grant (for full time scholar) recipient

March 2014 - Present

Ph.D Scholar,registered under Faculty of Engineering and Technology, University of Kerala

- Area of research is applying authorship analysis in social networks using machine learning approaches.
- Learning effective means of analyzing authorship of short online social media documents
- Employing stylistic analysis in social media groups for effective recommendations and identifying violations of social media group policies
- Guided several student projects on Authorship analysis, Machine Learning and Social Networking
- Published six articles including three journal articles.

Mohandas College of Engineering and Technology

August 2012 - July 2013

Assistant Professor

Anad, Thiruvananthapuram

- Offered courses on Principles of Programming Language and Internet Technology for B Tech.
- Part of various research, academic,cultural and social service activities held in the institute.
- Conducted a seminar on Ant colony Optimization

List of Publications

- Athira, U. and Sabu, M Thampi.:Linguistic Feature Based Filtering Mechanism for Recommending Posts in a Social Networking Group,IEEE Access,pp:4470-4484 (2018) (SCI Impact Factor 3.244)
- Athira, U. and Sabu, M Thampi.:An Author Specific Model Based Authorship Analysis using Psycholinguistic Aspects and Style Word Patterns,Journal of Intelligent Fuzzy Systems, IOS Press,Vol. 34, No. 3, pp:1453-1466 (2018) (SCI, Impact Factor 1.261)
- Athira, U. and Sabu, M Thampi.:Authorship Analysis of Social Media Contents Using Tone and Personality Features. In: Security, Privacy, and Anonymity in Computation, Communication, and Storage. SpaCCS 2017. Lecture Notes in Computer Science, Springer, Cham, Vol. 10656, pp:212-228 (2017)(Scopus Indexed)
- Athira, U. and Sabu, M Thampi.: Varikalile vyakthi savisheshatha, Shasthradarshini, (ISSN Online:2456-7566), Vol. 1, No. 1, pp:16-25(2016)
- Athira, U. and Sabu, M Thampi.:Hallmarking Author Style from Short Texts by Multi-Classifer Using Enhanced Feature Set,In proc.Third International Symposium on Women in Computing and Informatics,pp:284-289 (2015), (Scopus Indexed)
- Athira, U. and Sabu, M Thampi.:Authorship analysis techniques and challenges,New Threats and Countermeasures in Digital Crime and Cyber Terrorism,IGI Global, pp:173-194 (2015) (Scopus Indexed)
- Sathyadevan, S., Athira, U., Sarath, P.R. and Anjana, V., 2014, August. Improved document classification through enhanced Naive Bayes algorithm. In Data Science & Engineering (ICDSE), 2014 International Conference on (pp. 100-104). IEEE
- Panicker, A.D., Athira, U. and Venkitakrishnan, S., 2012. Question classification using machine learning approaches. International Journal of Computer Applications, Vol. 48, No.13, pp.1-4(2012)
- Athira, U. Question classification and sub classification using Machine Learning Approaches, In proceedings of National Conference on Advances in Computing and Computer Application, 2012

Professional Services

- Served as reviewer for International Journal of Trust Management in Computing and Communications (IJTMCC), 2018
- Served as reviewer of IEEE Access Journal,2018
- Served as reviewer of Journal of Network and Computer Applications, Elsevier, 2017
- Served as reviewer for International Journal of Computational Science and Engineering (IJCSE),2017
- Served as the reviewer for IEEE SPICES (The International Conference on "Signal Processing, Informatics, Communication and Energy Systems") 2017
- Served as reviewer of 2015 International Conference on Computing and Network Communications (CoCoNet15)
- Served as reviewer in Second Symposium on Advances in Applied Informatics (SAI17)
- Served as reviewer in Sixth Symposium on Natural Language Processing (NLP17)
- Served as session chair for the session Intelligent Techniques and Applications-III at International Symposium on Intelligent Systems Technologies and Applications (ISTA15)

Workshops Organized

- International Workshop on Authorship Analysis in Forensic Linguistics (AFL-2014),as collocated event of third International Conference on Advances in Computing Communications and Informatics (ICACCI14)

Talks Delivered

- A talk on "Authorship analysis in online social media", in the Student Research Forum conducted as part of the IEEE International 5G Submit [IoT and Cyber Security] held at the Mascot Hotel, Trivandrum on the July-1, 2017.
- A Talk on Authorship Analysis in Forensic Linguistics at LBS Center for Science and Technology, December-18, 2015
- A talk on "Authorship analysis in forensic linguistics", in fifth IDRBT Doctoral Colloquium, Organized by institute of Development and Research in Banking Technology, December 10-11,2015
- A talk on "Investigating the applicability of Authorship Analysis in online Social Media", Workshop on Secure IT User, Organized by Indian Institute of Information Technology and Management-Kerala, on November,20, 2015
- A talk on "Who wrote it? A step towards identifying authorship in online social media", as part of the workshop on Cyber Security organized by IIITM-K on July-24-2015.
- A talk on "Authorship analysis and its applications in online social media", Indian Institute of information Technology and Management- Kerala
- A talk on "Antcolony optimization and its application in genomics", at Centre for Bio-informatics on February-11,2013

Workshops and Trainings attended

- Talk by Prof. Axel Sikora,Offenburg University of Applied Sciences Germany, on "Interoperability, Security and Reliability for a Scalable Internet of Things", Organized by ACM Trivandrum Chapter in association with IEEE Communications Society, Hochschule Offenburg University of Applied Sciences and Indian Institute of Information Technology and Management-Kerala, on February-10, 2018
- Talk by Dr. Aditi Majumder, Professor, University of California on the topic "The Road: From Research to Commercialization of Ubiquitous Displays", Organized by ACM Trivandrum Chapter, on 18th September , 2017
- Participated in and Volunteered, One-Day Workshop on "Blockchain Technology", Organized by Data Engineering Lab, Indian Institute of Information Technology and Management Kerala (IIITMK) 03 March, 2017 Park Centre, Technopark
- Workshop on "Network Analysis and Machine Learning", Organized by the Centre for Quantitative Analysis, University of Kerala, Kariyavattom, in collaboration with the Campus Computing Facility, University of Kerala, from February 20 - 23, 2017.
- Talk on "Machine Learning and Applications", by Dr. Oge Marques, Florida Atlantic University (FAU), USA, Organized by ACM Trivandrum Professional Chapter December 12, 2016
- One Day Workshop on Neural Networks by Dr. Sebastian Basterrech, Faculty of Electrical Engineering and Computer Science VSB-Technical University of Ostrava, Ostrava, Czech Republic, Organized by ACM Trivandrum Chapter in association with Indian Institute of Information Technology and Management-Kerala, on August 27, 2016
- Workshop on "Introduction to Deep Learning and its Application : Theory and Hands On", Organized by Department of Avionics, Indian Institute of Space Science and Technology, Trivandrum on June 22,2017.
- Participated in and Volunteered ACM India Annual Event 2016 held on January 22, at Al Saj Convention Centre, Thiruvananthapuram.
- Workshop on "Machine Learning Algorithms", Department of Computer Science and Engineering, College of Engineering Perumon
- International Workshop on Cyber Threat Resilience, organized by Indian Institute of Information Technology and Management -Kerala in association with Stevens Institute of Technology, USA,13th of October,2015

- Seminar on "Paradigm of the future Internet", by Prof. Dr. Zoran S. Bojkovic, University of Belgrade, Serbia , at Indian Institute of Information Technology and Management-Kerala, on August 14, 2015.
- Participated in and volunteered Workshop on Design and Analysis of Algorithms Advanced Course, jointly organized by ACM Trivandrum chapter and ACM India Education, in association with the Indian Association for Computer Science Research (IARCS) and Indian Institute of Information Technology and Management-Kerala (IIITM-K) on April 24-29, 2015
- Second International Conference on Security in Computer Networks and Distributed Systems (SNDS-2014) International Symposium on Signal Processing and Intelligent Recognition Systems (SIRS-2014) on March 13-14, 2014
- Workshop on Data Analysis using R Software in IIITMK, Technopark, held from December 5-7, 2013
- Participated in and volunteered Workshop on Design and Analysis of Algorithms, Organized by ACM Trivandrum Chapter in association with Indian Institute of Information Technology and Management-Kerala, September 6-10,2013
- Participated and volunteered, National Conference on Advances in Computing and Computer Application, 2012
- Faculty Induction Program Organized by ISTE chapter of Mohandas College of Engineering and Technology (MCET),(2012)
- Faculty Development Program on "Big Data" conducted by TCS (2012)

INDUSTRY EXPERIENCE

PIT Solutions Technopark.

Software Engineer

August 2009 - July 2010

Thiruvananthapuram, Kerala

- Worked as associate trainee
- Developed a carbondioxide emission calculator
- Debugged the project :SOXIOS -an online address book

MACHINE LEARNING EXPERIENCE

1. Study of existence of causal link between personality traits and tone of authors with their writing style

ML Problem : Feature selection
Algorithms : Multiple Linear regression
Technologies : Weka, Pandas, Scipy

2. Authorship Analysis of Social Media Contents Using Tone and Personality Features

ML Problem : Text classification, Transfer Learning, Sentiment Analysis
Algorithms : Convolutional neural network, Support Vector Machines, Stacked Ensembling
Technologies : Keras, Scrapy, Tweepy, Scipy, Numpy, Matplotlib

3. Linguistic Feature Based Filtering Mechanism for Recommending Posts in a Social Networking Group

ML Problem : Recommender System, Sentiment Analysis, Emotion Recognition
Algorithms : K-Means Clustering, Multi-level Clustering, Collaborative Filtering, Content Based Filtering
Technologies : Sklearn, Concept-net, AlchemyLanguage, Gensim

4. **An Author-Specific-Model-Based Authorship Analysis using Psycholinguistic Aspects and Style Word Patterns**

ML Problem : Text Classification, Topic modelling,
Algorithms : Ensembled Learning, Dimensionality Reduction, Support Vector Machine, Latent Dirichlet Allocation, Gibbs Sampling
Technologies : Scikit learn, Mallet, Linguistic Inquiry Word Count, Beautifulsoup, Pandas

5. **Hallmarking Author Style from Short Texts by Multi-Classifer Using Enhanced Feature Set.**

ML Problem : Text Classification, Parts of Speech Tagging
Algorithms : Ensembled Learning, Dimensionality Reduction, Support Vector Machine
Technologies : Scikit learn, NLTK, Wordsmith Tool, Weka

6. **Improved document classification through enhanced Naive Bayes algorithm**

ML Problem : Text Classification
Algorithms : Naive Bayes algorithm
Technologies : Weka , Word Vector Tool, No SQL, JFrames

7. **Question Classification using Machine Learning Approaches**

ML Problem : Question Classification
Algorithms : Naive Bayes algorithm, Support Vector Machines, Dimensionality Reduction
Technologies : Word Vector Tool, MySQL, C

PERSONAL INFORMATION

Strengths

- Good presentation skill
- Good organization and co-ordination skill
- Report writing capability

Hobbies

Dance,Blog Writing, Video Making

Date of Birth : 10-11-1987

Location : Trivandrum

REFERENCE

- Dr. Sabu.M.Thampi
Associate Professor
Indian Institute of Information Technology and Management-Kerala
Technopark
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