# Nada Hassan Alalyani

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## Education
Ph.D.  Computer Science  – AI/NLP  – Colorado State University – Current
M.S.   Computer and Information Science – Information Technology  –  King Saud University  2016
B.S.   Computer and Information Science – Information Technology – **Data Mining** King Saud University    2014

## Academic and Professional Experience
- SIGNAL (Situated Grounding and Natural Language) Research Group, Department of Computer Science, Colorado State University, Fort Collins, Colorado, the United States of America
- *IWAN Research Group,* Member*,* Computer and Information Science, King Saud University – Riyadh, Saudi Arabia 2014 – 2016
- *SKERG Research Group,* Member, Computer and Information Science, King Saud University – Riyadh, Saudi Arabia 2014 – 2016
- *Saudi Computer Society,* Member, Riyadh, Saudi Arabia, 2014 – 2015
- *IWAN Research Group,* Software Developer of Predatory Scientific Publications website, King Saud University – Riyadh, Saudi Arabia, January 2014 – April 2014
- *Braem Alnakeel Nursery,* Project Leader, Riyadh, Saudi Arabia, September 2013 – June 2014
- *Summer Training Management System,* Software Developer, Advanced Software Engineering, Computer and Information Science, King Saud University – Riyadh, Saudi Arabia, February 2012 – June 2013
- *General Relations Management System,* Software Developer, Library of Medical Science and Studies, King Saud University – Riyadh, Saudi Arabia, January 2013 – April 2013

## Professional Development
- *Sentiment Analyses Model of Twitter Data Using Machine Learning Methods,* Poster Presentation at King Saud University, 2014
- *Sentiment Analyses of Specific Hashtag on Twitter Using Hadoop,* Poster Presentation at King Saud University, 2014
- *Nursery Management System Project, Poster* Presentation at King Saud University, 2014
- *Sixth Annual Undergraduate Research Conference,* Active Participant, Zide University, Dubai, 2014
- *Congestion Control Mechanisms at Transport Layer in Wireless Sensor Networks,* Presenter, Software Engineering Research Conference at Prince Sultan University, 2014
- *Aramco Female University Seminar,* Attendee, Prince Sultan University, 2014

**Advisors**
Master Advisor: Dr. Souad Larabi, Department of Computer and Information Science, King Saud University, Riyadh, Saudi Arabia

Ph.D. Advisor: Dr. Nikhil Krishnaswamy, Department of Computer Science, Colorado State University, Fort Collins, Colorado, the United States of America

**Research Interests & Statement**
Natural Language Processing, Artificial Intelligence, Data Mining, and Machine Learning

MS in Information Technology from Computer and Information Science Collage, graduated with Honors, now seeking to leverage professional and academic experience to complete the doctoral studies focused on Natural Language Processing. Upon graduation, I plan to engage in research and academic directions, thereby facilitating the far-reaching changes initiated by the Saudi Vision 2030 economic revitalization project now underway in Saudi Arabia.

**Publications and Scholarly Work**

**Works in Progress**
- "Automatic Arabic Documents Classification and Processing System."
- "NCREG: Generating a Novel Corpus for Intelligent generation of Multimodal Referring Expressions"

**Publications**
- Larabi, S. & Alalyani, N. "Firefly Algorithm Based Feature Selection for Arabic Text Classification," *Journal of King Saud University (JKSU) – Computer and Information Sciences*, 2018. https://doi.org/10.1016/j.jksuci.2018.06.004
- S. Larabi Marie-Sainte, N. Alalyani, S. Alotaibi, S. Ghouzali and I. Abunadi, "Arabic Natural Language Processing and Machine Learning-Based Systems," in *IEEE Access*, vol. 7, pp. 7011-7020, 2019. URL: http://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=8594541&isnumber=8600701.
- Nada Alalyani and Souad Larabi Marie-Sainte, "NADA: New Arabic Dataset for Text Classification" *International Journal of Advanced Computer Science and Applications (IJACSA),* 9(9), 2018. http://dx.doi.org/10.14569/IJACSA.2018.090928.
- Larabi Marie-Sainte, S., & Alalyani, N. "NADA: A New Arabic Dataset." doi: 10.13140/EF.2.2.13606.01603 and https://www.researchgate.net/publication/326060650_NADA_A_New_Arabic_Dataset
- Krishnaswamy, Nikhil, and Nada Alalyani. "Embodied Multimodal Agents to Bridge the Understanding Gap." *Proceedings of the First Workshop on Bridging Human–Computer Interaction and Natural Language Processing*. 2021. https://aclanthology.org/2021.hcinlp-1.7.pdf

**Awards, Funding, and Other Support**
- Saudi Arabian Cultural Mission full academic scholarship
- This research *"Arabic Natural Language Processing Applications Based Machine Learning: A Survey"* was supported by a grant from the "Research Center of the Female Scientific and Medical Colleges", Deanship of Scientific Research, King Saud University.

**Certifications**
- Programming Training, <Matlab, Mathxpert, Programming> 2011
- Business Leadership, <How to Improve the Idea into Leading Projects> 2013
- Design Training Course, <How to Use Photoshop in Designing Field> 2013
- Programming, <Introduction to Python> 2014
- Computer Maintenance Certification Course, 2014
- Self-Improvement, <How to Communicate Effectively> and <How to Utilize Abilities> 2014
- English as a Second Language, English for Academic Purposes, International English Center- CO -United States, 03/2018- 08/2019

**Courses**
**Ph.D. Courses**

- Artificial intelligence, *Spring 2020*, Colorado State University
- Machine Learning, *Fall 2019*, Colorado State University
- Software Maintenance and Evolution, *Spring 2020*, Colorado State University
- Software Product and Process Evaluation, *Fall 2019*, Colorado State University
- STEM Communication, *Spring 2020*, Colorado State University
- Seminar, *Fall 2019 and Spring 2020*, Colorado State University
- Design and Data Analysis for Researchers: R Software, *Fall 2020*, Colorado State University
- Research Seminar in Computer Science, *Fall 2020*, Colorado State University
- Big Dara, Spring 2021, Colorado State University
- Natural Language Processing, Fall 2021, Colorado State University

**Masters Courses**

- Arabic Natural Language Computing
- Research Methods
- Advanced Topics in Data Mining
- Advanced Topics in web technologies
- Interactive Multimedia Application
- E-learning System
- Usability and user Experience in information Technologies
- Advanced Topics in Databases
- Research Methods
- Grid and Cloud Computing
- Advanced Topics in Networks
- Selected Topics in Information Technology

**Bachelor's Courses**

- Database principles
- Computer Programming
- Mathematics
- HCI and Visual Programming
- Data Structures
- Computer Organization and Assembly Language
- Engineering Probability and Statistics
- Distributed Systems
- Ethics and Information Technology
- Intelligent Systems
- Data Warehousing and Data Mining
- Operating System
- Database Management System
- Information Security
- Software Engineering
- Computer Architecture
- Web applications
- Networks

**Skills**

Proficient in:
- Analysis and creation of system requirements to specifications and design
- Design, creation, and maintenance of user-friendly databases
- Java, Python, C#, HTML, JavaScript, XML, and CSS (advanced)
- Communication of complex information
- Arabic and English languages

**Recommendations**

Dr. Souad Larabi
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