Shabana K M

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RESEARCH INTERESTS

Machine Learning, Artificial Intelligence in Education

EDUCATION

Indian Institute of Technology, Palakkad *July 2019 - Present*
Doctor of Philosophy *CGPA: 10/10*
Supervisor: Dr. Chandra Shekar Lakshminarayanan

National Institute of Technology, Calicut *July 2011 - June 2013*
Master of Technology, Computer Science and Engineering *CGPA: 9.73/10*
Gold Medalist

Amrita Vishwa Vidyapeetham *July 2007 - May 2011*
Bachelor of Technology, Computer Science and Engineering *CGPA: 9.8/10*
Silver Medalist

EXPERIENCE

Flytxt, Trivandrum June 2013 - December 2016
Research and Development Engineer

· Worked on projects related to customer segmentation in telecom domain and developed novel algorithms for performing automatic intelligent grouping of subscribers. Designed interesting visualizations for leveraging value out of large structured/ unstructured data sources, which were later added to the visualization dashboard of the company's product

PUBLICATIONS

Shabana, K. M., Nazeer, K. A., Pradhan, M., & Palakal, M. (2015). A computational method for drug repositioning using publicly available gene expression data. BMC bioinformatics, 16(17), S5. [Paper] *Won the best paper award at IEEE 4th International Conference on Computational Advances in Bio and Medical Sciences (ICCABS), 2014*

Shabana, K. M., & Wilson, J. (2015, May). A novel method for automatic discovery, annotation and interactive visualization of prominent clusters in mobile subscriber datasets. In 2015 IEEE 9th International Conference on Research Challenges in Information Science (RCIS) (pp. 127-132). IEEE. [Paper]

Shabana, K. M., Wilson, J., & Chaudhury, S. (2016, August). A multi-view non-parametric clustering approach to mobile subscriber segmentation. In 2016 IEEE 18th Conference on Business Informatics (CBI) (Vol. 1, pp. 173-181). IEEE. [Paper]

HONORS AND AWARDS

- Prime Minister's Research Fellow (PMRF May 2020 lateral entry scheme)
- Software Design National Finalist at Microsoft Imagine Cup 2010
- Secured AIR 272 in GATE 2011 (CSE)
- Won the Ada Lovelace best outgoing girl student award for the year 2010 at A2CWiC: Amrita ACM-W Celebration on Women in Computing in India
- Data Challenge Finalist at ACM IKDD CoDS 2016
- Won the Collaboration Award at Flytxt for demonstrating good team work towards achieving the company's objectives
- First prize winner in the First Teaching Challenge on introductory programming organized by ACM iSIGCSE
- Won the second prize in ACM Compute 2021 teaching challenge organized by ACM iSIGCSE

PATENT

- Systems and methods for management of multi-perspective customer segments (US Patent 10,936,620, 2021) ***(First inventor)***

PROJECTS

Understanding the Indian labour market: A data-centric approach
In this project, we used the Aspiring Minds's Employability Outcomes 2015 (AMEO 2015) dataset to identify the significant factors that influence the salary and jobs offered to engineers graduating from India. Predictive modelling of salary was performed using different machine learning techniques on the data set that included both employee profiles and their employment outcomes. Decision tree analysis, feature analysis, correlation analysis and t-test were performed to identify the significant factors that influenced the annual salary offered to a candidate. Visualizations generated based on employee salary, designation and job city revealed interesting insights.*[ACM IKDD CoDS Data Challenge 2016]* [Report]

Karshik
Karshik is a small scale, service administering project. The objective of this project is to make vital statistics about crops pertaining to a certain topology, geographic location and climatic conditions available to farmers in India, so as to equip them with information for producing better yields. *[Microsoft Imagine Cup 2010]*