

# RAO MUHAMMAD UMER

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Sahiwal, Punjab,  
Pakistan.

## Research Interests

**Data Science, Machine Learning, Big Data Analytics, Deep Learning, Natural Language Processing, Information Retrieval and Data Mining.**

## Education

- NOV 14 - OCT 16 **MS in Computer Science**, *Pakistan Institute of Engineering and Applied Sciences*, Nilore, Islamabad, Pakistan.  
Area: Computational Intelligence and Machine Learning  
CGPA: 3.45/4.0
- SEP 10 - OCT 14 **BSc. in Computer Systems Engineering**, *The Islamia University of Bahawalpur*, Bahawalpur, Pakistan.  
Major Subjects: Parallel and Distributed Computing, Image Processing  
CGPA: 3.82/4.0
- SEP 08 - SEP 10 **FSc. in Pre-Engineering**, *Government Post Graduate College*, Sahiwal, Pakistan.  
Major Subjects: Mathematics, Physics, Chemistry  
Percentage average: 86%, 943/1100 Marks.
- MAR 06 - AUG 08 **Matriculation in Science**, *Lasani Public High School*, Sahiwal, Pakistan.  
Major Subjects: Mathematics, Physics, Chemistry, Biology  
Percentage average: 92%, 783/850 Marks.

## Research Experience

- JUN 16 - OCT 16 **MS Thesis**, *Pakistan Institute of Engineering and Applied Sciences*, Islamabad, Pakistan.  
  - Deep Content Extractor: Content Discovery From Deep Web Using Large Scale Data Analytics Paradigm
  - Techniques: supervised learning, classification, recommender system, ranking
  - Data Size: 44 MB (Analyzed 20newsgroup dataset and raw text data of webpages)
- SEP 13 - SEP 14 **Technical Report**, *The Islamia University of Bahawalpur*, Bahawalpur, Pakistan.  
  - Spam Filtering System: Malicious Email Detection and Filtering System Using Bayesian Machine Learning Algorithm
  - Techniques: supervised learning, Bayesian learning, classification
  - Data Size: 15 MB (Analyzed spam & non-spam emails dataset)
  - Led a team of 4 undergrad student to develop spam filtering system

## Talks

- FEB 16 **Implementation of Linear Regression and Multi-variate Regression on GPU**, *GPU Computing workshop*, *Pakistan Institute of Engineering and Applied Sciences*, Islamabad, Pakistan.
- AUG 16 **Deep Learning & GPUs**, *Introduction to DNNs workshop*, *Pakistan Institute of Engineering and Applied Sciences*, Islamabad, Pakistan.

## Open Source Projects

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|---------------|---------------------------------------|---|
| doccatpredapp | Document's Category Predictor Webapp. | <a href="http://doccategorypredictor.herokuapp.com">http://doccategorypredictor.herokuapp.com</a>               |
| docWebClf     | Documents & Webpages Classification.  | <a href="http://raoumer.github.io/docs_classification">http://raoumer.github.io/docs_classification</a>         |
| regrGPU       | Linear & Multiple Regression on GPU.  | <a href="http://raoumer.github.io/GPU-Workshop-PIEAS-2016">http://raoumer.github.io/GPU-Workshop-PIEAS-2016</a> |

## Honors and Awards

- NOV 14 - OCT 16 **PIEAS Fellowship by PIEAS IT-Endowment Fund**, sponsored by Higher Education Commission(HEC) for MS Computer Science.
- SEP 10 - SEP 14 **Fully Funded National ICT Scholarship**, by National ICT R & D Fund for BSc. Computer Systems Engineering.
- JUN 11 - JUN 14 **Position Scholarship**, by University College of Engineering and Technology, The Islamia University of Bahawalpur for excellent academic performance throughout undergraduate degree.
- SEP 10 - SEP 14 **Merit Scholarship**, by Punjab Educational Endowment Fund(PEEF) for excellent academic performance in higher secondary school examination.
- OCT 08 - AUG 10 **Merit Scholarship**, by Multan Board of Intermediate and Secondary Education for excellent academic performance in secondary school examination.
- AUG 06 - AUG 08 **Merit Scholarship**, by Multan Board of Intermediate and Secondary Education for excellent academic performance in District level school examination.

## Voluntary Work

- SEP 12 - MAY 14 **Member**, Blood Donating Society, The Islamia University of Bahawalpur, Bahawalpur, Pakistan.
- NOV 08 - MAY 10 **Decision Committee Member**, College Gardening and Other Infrastructure Maintenance, Govt. Post Graduate College, Sahiwal, Pakistan.

## Skills

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|---------------------|---|--------------------------|
| Languages           | • Urdu: Native  | • English: Fluent        |
| Hobbies             | • Cricket   | • Reading Historic Books |
| Programming         | Python, C/C++, Java.  |                          |
| Scientific Software | Theano, Scikits-learn, Scipy, Numpy, IPython, Jupyter Notebook, Matplotlib, Flask, Pandas, Anaconda Python, Heroku, Git, Latex. |                          |
| Computer Skills     | Experienced in managing Linux and Windows systems.  |                          |

## References

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| <b>Dr. Muhammad Abid Mughal</b><br>Department of Computer Science,<br>Pakistan Institute of Engineering and<br>Applied Sciences,<br>Nilore, Islamabad, Pakistan.<br>✉ mabidm@pieas.edu.pk | <b>Dr. Asifullah Khan</b><br>Department of Computer Science,<br>Pakistan Institute of Engineering and<br>Applied Sciences,<br>Nilore, Islamabad, Pakistan.<br>✉ asif@pieas.edu.pk | <b>Dr. Fayyaz-ul-Amir</b><br>Department of Computer Science,<br>Pakistan Institute of Engineering and<br>Applied Sciences,<br>Nilore, Islamabad, Pakistan.<br>✉ afsar@pieas.edu.pk |
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