

RAO MUHAMMAD UMER

engr.raoumer943@gmail.com
http://raoumer.com

+92 336 7675246
CS & IT Department, The University of Lahore,
Defence Road, Lahore, Pakistan.

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: AI, 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 Interests

Data Science, Machine Learning, Deep Learning, Big Data Analytics, Computer Vision, Natural Language Processing, Information Retrieval and Data Mining, High Performance Computing.

Research Experience

- JUN 16 - OCT 16 **MS Thesis**, *Pakistan Institute of Engineering and Applied Sciences*, Islamabad, Pakistan.
• Deep Web Extractor (DWX): Content Discovery From Deep Web Using Large Scale Data Analytics Paradigm
• Techniques: supervised learning, classification, structured learning
• Data Size: 68 MB (Analyzed Web forms dataset) & 1 GB (Raw Webpages Dataset)
- 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 Fellow to develop spam filtering system

Teaching Experience

- OCT 16 - CONT. **Lecturer**, *Department of CS & IT, The University of Lahore*, Lahore, Pakistan.
Summer 2017: • Data Structures and Algorithms (CS-2112)
Spring 2017: • Digital Logic Design (CS-4349) • Business Computing (CS-1010)
Fall 2016: • Programming Fundamentals - I (CS-1012) • Introduction to Information and Communication Technologies (CS-1010) • Digital Logic Design (CS-4349)
Note: All taught courses link is available at: <http://raoumer.github.io/courses.html>

Writing

APR 10, 2017	Open Data Resources For Data Science Research , http://raoumer.com/blog_posts/data_sources.html .
MAR 11, 2017	Current Machine Learning research directions , http://raoumer.com/blog_posts/ml_research_problems.html .
JAN 16, 2017	Building Machine Learning Systems with Python , http://raoumer.com/blog_posts/building_ML_model.html .
DEC 19, 2016	Data Science Industrial Roles: Who Does What? , http://raoumer.com/blog_posts/ds_industry_roles.html .
AUG 06, 2016	Deploying Data Apps with Flask, Github and Heroku , http://raoumer.com/blog_posts/webappdev.html .
JUN 18, 2016	The Deep Web , http://raoumer.com/blog_posts/deep_web.html .

Talks

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

Open Source Projects

dwx	Deep Web Extractor System.	http://raoumer.com/dwx
docatpredapp	Document's Category Predictor Webapp.	http://doccategorypredictor.herokuapp.com
docWebClf	Documents & Webpages Classification.	http://raoumer.com/docs_classification
regrGPU	Linear & Multiple Regression on GPU.	http://raoumer.com/GPU-Workshop-PIEAS-2016

Honors and Awards

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

Workshops & Trainings

NOV 01 - 03, 2016	Faculty Development Training , <i>Contents: “ Teaching methodology, Curriculum Designing, Assessment ”</i> , The University of Lahore, Lahore, Pakistan.
SEP 15 - 16, 2016	Deep Learning , <i>Take part as a resource person</i> , Department of Computer & Information Sciences, PIEAS, Islamabad, Pakistan.
FEB 15 - 19, 2016	General Purpose Computation on GPUs using CUDA C , <i>Take part as a resource person</i> , Department of Computer & Information Sciences, PIEAS, Islamabad, Pakistan.
JUN 22 - JULY 9, 2015	Python Programming in Engineering & Applied Sciences , <i>Take part as a student</i> , Department of Computer & Information Sciences, PIEAS, Islamabad, Pakistan.
JUN 01 - 15, 2013	LAMP (Linux, Apache, MySQL, PHP) Server , <i>Take part as a student</i> , Department of Computer System & Electronics Engineering, The Islamia University of Bahawalpur, Bahawalpur, Pakistan.

Skills

Languages	• Urdu: Native	• English: Fluent
Hobbies	• Cricket	• Reading Newspaper Columns
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.	

Voluntary Work

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

References

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