# **Himat Shah**

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#### PAGE 1 – APPLICATION

#### About me

Passionate and dedicated educator with a robust background in computer science, machine learning, and data science. I am to inspire students and help them develop the skills needed for the tech industry. My professional experience in diverse cultural settings in Finland, the UK, and Pakistan has enriched my teaching approach and enhanced my ability to guide students from various backgrounds.

With a Ph.D. in Computer Science and a focus on machine learning, I have navigated diverse roles within the IT and software industry over the past six years. This journey started from software development and transitioned towards teaching and training. From 2018 to 2022, I pursued my Ph.D. in Finland, culminating in graduation in November 2022. My research was conducted at the School of Computing, University of Eastern Finland, Joensuu, within the machine learning group. Specializing in data science and web content mining, I have developed four distinct methods for keyword extraction, demonstrating expertise in both language-dependent and independent approaches.

Programming is not just a profession but a passion, occupying a significant portion of my free time as I continuously practice and refine my programming skills. Proficient at grasping the big picture while delving into crucial details, I adhere to a methodical approach of proving correctness before implementation. My hunger for challenges is evident in my love for constant learning and thriving in complex environments.

In my current role, I am a Senior Researcher in Data Analytics for the Turku University Dining Flow Project. This position allows me to apply my skills and knowledge gained over years of dedicated study and research. I am seeking opportunities with a reputable company in Finland where I can contribute my expertise and further excel in my field.

It is my passion to learn about computer science, machine learning, data science, and web mining. Having been a programmer since I was a teenager, I possess solid programming skills and knowledge. I strive to be a lifelong learner who pays attention to details. Since machine learning can benefit many people, it is my main motivation. For more details read here.<sup>1</sup>

<sup>1</sup> http://cs.uef.fi/~himat/

#### Experience

Senior Researcher	Turku University Department of	10/2023	Going On
Data Analytics	Computing. (Dining Flow Project)		

#### **Key achievements**

- Project Leadership: Led a project on data analytics that improved processing speed by 30%.
- Innovative Tools: Developed an online tool for waste data analysis, now in use.
- Database and Time Series Optimization: Organized and optimized data in databases using time series analysis, enhancing efficiency and synchronization. Applied anomaly detection to identify and address data issues impacting forecasting accuracy, especially during COVID-19.
- Predictive Modeling: Predicted customer flow in restaurants, enabling better resource management for owners.
- **-** Publication: Published a paper in a top-tier journal.

Data Specialist	Central Hospital Joensuu (SiunSote), Finland	9/2020	1/2022
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#### **Key achievements**

- Data Management: Utilized SQL Server and Qlik software for efficient data management, ensuring integrity and reliability through backup scheduling and recovery procedures.
- Query Optimization: Wrote and optimized SQL queries for seamless data retrieval and analysis, improving access to patient records and research data.
- Data Sharing: Exported patient data to Excel for collaboration with university research groups, maintaining compliance with data protection policies.
- Data Security: Implemented access controls and encryption mechanisms to protect patient confidentiality and privacy, adhering to data protection standards.
- System Enhancement: Enhanced the online reservation system, improving functionality and patient experience through updates and enhancements.
- Complex System Maintenance: Successfully maintained and updated the online reservation system, addressing usability issues and ensuring
  effective patient usage.
- User-Friendly Design: Implemented user-friendly features to enhance the patient interface, increasing usability and satisfaction.
- System Troubleshooting: Identified and resolved technical issues in the online reservation system, ensuring reliable operation.
- Collaborative Problem-Solving: Collaborated with hospital staff and IT teams to optimize system performance, fostering a collaborative approach to improvement.

#### Assistant Professor (IT) Engineering University (QUEST), Pakistan 4/2016 1/2018

- Overall responsibilities for the university web development and teaching.
- Responsible for the motivation and development of 10 member staff.
- Lab work and lab assignments.
- Revamped the IT curriculum to include modern programming languages and tools.
- Supervised 10+ student research projects.

Lecturer (IT)	Engineering University (QUEST), Pakistan	2/2014	4/2016	
<ul> <li>Teaching IT subjects.</li> </ul>				
<ul> <li>Lab work and lab assignments.</li> </ul>				
Senior Lecturer (IT)	IBA- Community College Khairpur, Sindh	8/2013	2/2014	
<ul> <li>Teaching IT subjects.</li> </ul>	·	<u> </u>		
<ul> <li>Lab work and lab assignments.</li> </ul>				
Head of Institute (Principal)	SZABIST Nawabshah, Pakistan	9/2012	8/2013	
<ul> <li>Training IT courses</li> </ul>				
Organizing all course and management.				
Teacher Oracle databases	SZABIST Hyderabad Pakistan	2/2008	4/2009	

- Overall responsibilities for teaching.
- Government trainings for the students in Oracle 10g.
- **–** DBA oracle training for certifications.
- Designing, installing, upgrading, patching, tuning, monitoring, and troubleshooting databases.

# Important Links

GitHub https://github.com/adeelshah110

LinkedIn Https://linkedin.com/in/himatshah110

Webpage http://cs.uef.fi/~himat/

Google Scholar https://scholar.google.com/citations?user=UhLUHdcAAAAJ&hl=en

2012

Research Gate https://www.researchgate.net/profile/Himat-Shah

## Certification

- Oracle 10 g (DBA) OCP

### Machine Learning

Online Keyword Extraction for Webpages machine learning tools

- http://cs.uef.fi/~himat/Hrank
- http://cs.uef.fi/~himat/Drank
- http://cs.uef.fi/~himat/WebRank
- http://cs.uef.fi/~himat/ACI2

### Research Interest

- Keyword extraction for webpages
- Machine learning
- Topic modeling
- Webpage summarization
- Title extraction

## IT Trainings

- Is Programming for me? TE-Office Riviera School Joensuu 13.2.2023—01.10.2023

Laı	nguage	Months	Level	Status
P	ython	2.2	Advance	Completed
HTM	ML, CSS	1.0	Very good	Completed
Jav	aScript	1.1	Very good	Completed
Po	werBi	0.6	Good	Completed

AWS Cloud 3.2 Very good Completed

Education			
2018-2022	PhD	Computer Science	School of Computing University of Eastern Finland.
2014-2016	Masters	Information Technology	Engineering University (QUEST), Pakistan.
2010-2013	Masters	MBA	University of Wales Cardiff, United Kingdom.
2010-2010	Diploma	PGD Level -7	City college of London (CLC), United Kingdom.
2004-2008	Bachelors	Computer Science	University of Sindh Jamshoro, Pakistan.

#### **Publication**

#### **Journal Papers**

- I. C. Zhou, C. Wang, H. Hassan, H. Shah, B. Huang, P. Frnti, "Bayesian Inference for Data-efficient, Explainable, and Safe Robotic Motion Planning: A Review," arXiv preprint arXiv:2307.08024, 2023.
- II. H. Shah, S. Ahmed, A. Sathio, and A. Burdi, "W-rank: A Keyphrase Extraction Method for Webpage Based on Linguistics and DOM-base Features," In VAWKUM Transactions on Computer Sciences, 2023. ISSN(e): 2308-8168, ISSN(p): 2411-6335.
- III. H. Shah, P. Fränti, "Combining statistical, structural, and linguistic features for keyword extraction from web pages", In journal of Applied Computing and Intelligence, Aims press publication, 2022.
- IV. M. Shah, H. Pathan, H. Shah, and W. Shah," Effects of SMS texting on academic writing skills of undergraduate students at a public sector university in Pakistan", In Journal of Literature, Languages and Linguistics, 2021.
- V. A. Khan, A. Burdi, S. Awan, H. Shah, "Image segmentation approach using python OpenCV to detect tuberculosis", University of Sindh journal, 2019.
- VI. Laghari, H. He, S. Karim, H. Shah, and K. Karn, "Quality of Experience Assessment of Video Quality in Social Clouds", Wireless Communications and Mobile, 2017.

#### **Conference Papers**

- I. H. Shah, R. Mariescu-Istodor, P. Fränti, "WebRank: Language-Independent Extraction of Keywords from Webpages", In IEEE International Conference on Progress in Informatics and Computing (PIC), IEEE, 2021.
- II. H. Shah, M. Rezaei, and P. Fränti, DOM-based keyword extraction from webpages," In proceedings of international conference on artificial intelligence, information processing and cloud computing (AIIPCC), Sanya, China, Article No. 62, 2019.
- III. H. Shah, M. U. S. Khan, and P. Fränti, "Hrank: A keywords extraction method from web pages using POS tags," In IEEE International Conference on Industrial Informatics (INDIN), Helsinki, 2019.

### Other Skills

Very strong design skills.

- Languages: Sindhi (native), English (excellent), Finnish (B1), Germany and Russian (beginner), Chinese (Ni hao!).
- Personality: analytical, creative, goal-oriented, determined, good sense of humor.
- Always keep promises and complete the projects started.

## Hobbies

- Running, badminton, football, floorball, orienteering, marathons, ice swimming, F1 (driving in dreams), travelling.
- Cricket, music, volunteer works, socialize, event creator, making friends, cooking.

### References

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