Vaibhav KASTURIA

PERSONAL DATA

PLACE OF BIRTH: Delhi, India
DATE OF BIRTH: 18 November 1992
NATIONALITY: Indian
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WORK EXPERIENCE

AUG 2018 - PRESENT | Research Associate at UNIVERSITY OF HALLE-WITTENBERG, Halle (Saale)
Query Understanding via Entity Linking
Total Recall in Systematic Reviews
Argumentative Axiomatic Re-Ranking

MAY 2018 - JUL 2018 | Research Associate at FRAUNHOFER IAIS, Bonn
Development of a Question-Answering System for client companies.

OCT 2016 - JAN 2018 | Student Assistant at L3S RESEARCH CENTER, Hannover
Semantic and Entity-based exploration of Web Archives (*ALEXANDRIA Project*)

AUG 2014 - JAN 2015 | Intern (Software Developer) at ESRI, Sharjah
Handled Multidimensional Data (GRIB, NetCDF, HDF, etc.)
Analysis of Raster, Mosaic and Image Service Data Layers.
Fixed bugs and changes requested for ArcGIS 10.
Validated UI functioning of Raster and Geo-Processing Tools of ArcGIS Pro.
Removed potential defects (by Coverity Analysis) in Raster Solutions of ArcGIS 10.

JUN 2013 - AUG 2013 | Intern at FORTIS HEALTHCARE, Delhi
Assisted in the handling of EWS patients and Medico-Legal Cases.
Suggested improvements for the Day-Care Centre procedures.

MAY 2011 - JUL 2011 | Summer Intern at GYAN RESEARCH AND ANALYTICS, Delhi
Prepared an assessment report of the Indian Chemical Industry using secondary research sources.

EDUCATION

2015-18 | Master of Science in INTERNET TECHNOLOGIES AND INFORMATION SYSTEMS (ITIS)
Leibniz University Hannover, Hannover
Major: Data and Information
Research Project: "Building & Querying Semantic Layers for Web Archives"
Thesis: "Ranking Archived Documents for Structured Queries on Semantic Layers"
Examiners: Prof. Dr. Eirini NTOUTSI, Prof. Dr. Wolfgang NEJDL
Supervisor: Dr. Pavlos FAFALIOS
GPA: 1.1 (German Scale) | Detailed List of Exams

2011-15 | Bachelor of Engineering (Hons.) in COMPUTER SCIENCE
Birla Institute of Technology and Science - **Pilani**, Dubai
Thesis: "Software Development Practices at ESRI"
GPA: 1.1 (German Scale), 9.77 (Indian Scale) | Detailed List of Exams

Teaching

SS 2020	Foundations of Computer Science and Concepts of Modeling-II (Exercises)
WS 2019/20	Search Algorithms (Exercises)
WS 2019/20	Foundations of Computer Science and Concepts of Modeling-I (Exercises)
SS 2019	Project Internship (Supervision)
SS 2019	C Programming (Exercises)
WS 2018/19	Object Oriented Programming (Exercises)

Publications

Nov 2019 — WEBIS AT TREC 2019: DECISION TRACK
A. Bondarenko, M. Fröbe, **V. Kasturia**, M. Völske, B. Stein and M. Hagen
28th International Text Retrieval Conference (TREC'19)
Gaithersburg (Maryland, USA)

Jun 2018 — RANKING ARCHIVED DOCUMENTS FOR STRUCTURED QUERIES ON SEMANTIC LAYERS
Pavlos Fafalios, **Vaibhav Kasturia** and Wolfgang Nejdl
ACM/IEEE-CS Joint Conference on Digital Libraries (JCDL'18)
Fort Worth (Texas, USA)

Nov 2017 — BUILDING AND QUERYING SEMANTIC LAYERS FOR WEB ARCHIVES (EXTENDED VERSION)
Pavlos Fafalios, Helge Holzmann, **Vaibhav Kasturia** and Wolfgang Nejdl
International Journal on Digital Libraries (IJDL)

Jun 2017 — BUILDING AND QUERYING SEMANTIC LAYERS FOR WEB ARCHIVES
Pavlos Fafalios, Helge Holzmann, **Vaibhav Kasturia** and Wolfgang Nejdl
ACM/IEEE-CS Joint Conference on Digital Libraries (JCDL'17)
Toronto (Ontario, Canada)

Jun 2017 — TOWARDS A RANKING MODEL FOR SEMANTIC LAYERS OVER DIGITAL ARCHIVES
Pavlos Fafalios, **Vaibhav Kasturia** and Wolfgang Nejdl
ACM/IEEE-CS Joint Conference on Digital Libraries (JCDL'17)
Toronto (Ontario, Canada)

Technical Proficiency

Programming Languages:	JAVA (Advanced), Python (Intermediate), C/C++ (Intermediate)
Semantic Web Technologies:	RDF, OWL, SPARQL (Apache Jena, sparqlwrapper)
Entity Recognition:	AWS Comprehend, MITIE, LingPipe NER, DeepPavlov, Stanford NER, OpenNLP
Entity Linking:	Nordlys, Dexter, Dandelion API, Yahoo FEL, TAGME Babelfy, TextRazor, Ambiverse, Falcon
IDE Software:	IntelliJ, Visual Studio, Eclipse, NetBeans, Jupyter Notebook
Document Preparation:	LaTeX
Data/Code Management:	Gitlab/Github, GitKraken, SVN, CVS
Databases:	Virtuoso, RocksDB, MySQL, PostgreSQL
Information Retrieval:	Apache Lucene
Java Libraries:	Standard Libraries (Apache Commons, Lang, etc.), JSON/XML Parsing
Simulation Tools:	Matlab Simulink, Scilab
Geo-Information Systems:	ArcGIS
Natural Language Processing:	Word Embeddings (gloVe, Word2Vec), spaCy
Others:	Maven, Weka, Apache Tika, Query Segmentation, Multithreading
Others (Less proficient):	Intel 8085 Programming, Wireshark

Achievements and Awards

Dec 2018   Received certificate for Best Master's degree in the academic year 2017/18 by Leibniz University Hannover.

Jun 2017   Research Paper on *"Building and Querying Semantic Layers for Web Archives"* nominated for Best Paper Award at JCDL 2017.

2011 - 2015   Received BITS Scholarship for Academic Excellence for the entire duration of Bachelor's Degree.

Extra-Curricular Activities

Oct 2019   Sub-Reviewer
ECIR 2020 Conference, Lisbon

Oct 2019   Sub-Reviewer
CHIIR 2020 Conference, Vancouver

Sep 2016   Student Volunteer, Organizing Committee
TPDL 2016 Conference, Hannover

May 2016   Student Volunteer, Organizing Committee
ACM WebSci'16 Conference, Hannover

Sep 2012 - Jun 2013   General Secretary, Student Council
BITS Pilani, Dubai

Languages

English: First Language (C2)
German: Fluent (C1)
Hindi: First Language (C2)

Language Certifications

English:
Oct 2019   IELTS (General)   Overall Band: 8.0/9.0
Sep 2014   IELTS (Academic)   Overall Band: 8.0/9.0

German:
Dec 2019   Goethe Zertifikat B2   Total Score: 82/100
Nov 2019   Goethe Zertifikat B1   Total Score: 93/100
Jul 2015   Goethe Zertifikat A1   Total Score: 95/100

Technical Certifications

Apr 2020   Competitive Programming (Coding Ninjas)
Mar 2020   Introduction to the Bash Shell on Mac OS and Linux (Pluralsight)
Oct 2019   Master Object Oriented Design in Java (Udemy)
Sep 2019   Complete Python Bootcamp (Udemy)
May 2019   Improving Deep Neural Networks (Coursera)
May 2019   Structuring Machine Learning Projects (Coursera)
May 2019   Neural Networks and Deep Learning (Coursera)

Interests and Activities

Sketching, Swimming, Photography, Traveling

M.Sc. in INTERNET TECHNOLOGIES AND INFORMATION SYSTEMS

Grades

Exam	Grade	Credits
Field of Competence I - Theoretical Foundations		
Efficient Algorithms	1.0	5
Simulation Engineering	1.0	6
Field of Competence II - Data and Information		
Data Mining 1	2.3	5
Web Science	1.0	5
Knowledge Engineering and Semantic Web	1.0	5
Algorithms for Internet Applications	1.7	5
Foundations of Information Retrieval	1.3	5
Topics in Data Mining	1.0	5
Field of Competence III - Networking and Communication		
Seminar on Internet Technologies	1.3	5
Seminar: Security of Self-organizing Networks	1.0	5
Field of Competence IV - Business and Law		
Geo-Information Systems	1.0	5
Soft Skills		5
German Compact B1	1.0	
German Compact B2	1.0	
German B2/C1 - Oral Communication	1.3	
Research Project		
Research Project 1		30
Master Thesis		
Master Thesis	1.0	30
	Total	121
	GPA	**1.1 (German Scale)**

B.E.(Hons.) in COMPUTER SCIENCE

Grades (Relevant Courses)

Exam	Grade	Units
Computer Programming	A-	4
Digital Design	A	4
Discrete Structures for Computer Science	A	3
Logic in Computer Science	A-	3
Object Oriented Programming	A	4
Database Systems	A	4
Data Structures and Algorithms	B	4
Microprocessors and Interfacing	A	4
Theory of Computation	B	3
Operating Systems	A	3
Principles of Programming Languages	A-	2
Artificial Intelligence	A	3
Computer Architecture	A	4
Design Project I	A	3
Multimedia Computing	A	3
Design and Analysis of Algorithms	A	3
Compiler Construction	A-	3
Computer Networks	A	4
Software Engineering	A-	4
Special Project	A	3
Design Project II	A	3
Information Retrieval	A	3
Parallel Computing	A	3

	GPA	**9.77 (Indian Scale)**
		1.1 (German Scale)