

Shabbar Raza

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Education

Jacobs University

Bremen, Germany

PURSUING B.S. IN COMPUTER SCIENCE, GRADUATION EXPECTED IN JUNE 2017

08/2014 - PRESENT

- Notable Courses: Algorithms and Data Structures • Formal Languages and Logic • Computability and Complexity • Machine Learning • Operating Systems Lecture and Lab • Programming in C++ • Programming in Java • Software Engineering Lecture and Lab • Statistical Concepts and Data Analysis • Databases and Web Applications • IT Management

Keynesian Institute of Management and Sciences (KIMS)

Lahore, Pakistan

CAMBRIDGE INTERNATIONAL GENERAL CERTIFICATE OF EDUCATION A LEVEL - 3 AS

08/2012 - 08/2014

- Second Highest Achiever in class

Garrison Academy for Boys

Lahore, Pakistan

CAMBRIDGE INTERNATIONAL GENERAL CERTIFICATE OF EDUCATION O LEVEL - 10 A*/As, 1B

08/2008 - 08/2011

- Highest Achiever in class

Project Experience

Guided Research - Bachelor Thesis

Jacobs University, Bremen

"EXPLORING THE FEASIBILITY OF AUTOMATICALLY FINDING ALIGNMENTS ACROSS MATHEMATICAL LIBRARIES"

04/2017 - 08/2017

- Carried out research in construction of mathematical libraries represented in MMT and on the topic of *alignments*.
- Wrote an algorithm that outputs alignments among mathematical theories.
- Wrote a word segmentation algorithm using dynamic programming approach, and different string comparison and normalization algorithms.
- Wrote an algorithm that outputs names of identifiers from four different mathematical libraries using MMT.

Maze Runner Robot

Jacobs University, Bremen

SOFTWARE THAT ENABLES A ROBOT WITH A LASER RANGE FINDER TO AUTONOMOUSLY FIND ITS WAY OUT OF A MAZE

03/2016 - 04/2016

- Wrote separate packages for parsing and analysis of scanned data from sensors, and for physical execution of decisions.
- Learned and practiced software modularization, testing, documentation, and project management methodologies.
- <https://github.com/JacobsUniversitySELab2016S/se-lab-team-6>

MUNManager

Jacobs University, Bremen

A WEB APPLICATION AS A MANAGEMENT PLATFORM FOR THE ATTENDANTS AND ORGANIZERS OF MUN CONFERENCES

10/2015 - 12/2015

- Designed and implemented the database and wrote queries for specific tasks.
- Used GoogleMaps API with JavaScript to add one-click display of geographical location of the MUN conferences.
- Used JQuery with Bootstrap for pop-up forms, sliding menu, and navigation between sections.
- <https://github.com/nickles-lee/ConCoordinate>

MusicBall

Jacobs University, Bremen

AN AUDIOVISUAL MUSICAL INSTRUMENT

01/2016 - 01/2016

- Designed and implemented an application that produces different sounds and corresponding visual effects upon different inputs.
- Learned to program sounds and graphics, and to use object classification in a new domain while working with Processing.
- <https://github.com/mgladkova/musicBall>

Practical Experience

Voluntary Intern

Bremen, Germany

DFKI - ROBOTICS INNOVATION CENTER

06/2016 - 08/2016

- Worked on describing, and modelling of robot components using URDF and Solidworks.
- Worked on documentation of a software which served as prototype implementation of a paper on robotic simulations.

Intern

FRAUNHOFER - MEVIS

Bremen, Germany

06/2016 - 08/2016

- Worked on building a web application using Django framework.
- Wrote installation scripts for a server setup for both Ubuntu and Windows.

President - Undergraduate Student Government (USG)

JACOBS UNIVERSITY

Bremen, Germany

09/2016 - 09/2017

- Served as the head of Undergraduate Student Government which is the representative organization of all undergraduate students at Jacobs University Bremen.
- Facilitated communication between university administration and the student body.
- Introduced reforms in USG elections, finance management, disciplinary regulations, outreach methods, having impact on the USG, the student body, and the University.

Intercultural Trainer

JACOBS UNIVERSITY

Bremen, Germany

08/2015 - 08/2016

- Trained freshmen about intercultural competencies and skills on how to survive and thrive in a multicultural and academically challenging community such as Jacobs.

Student Assistant - Summer Camp Life Sciences 2015

JACOBS UNIVERSITY

Bremen, Germany

05/2015 - 05/2015

- Organized and facilitated the execution of all social activities and events at campus, and excursions off-campus for a diverse group of accomplished participants.

Instructor at LUMS Model United Nation (LUMUN) - Social Responsibility Program

LAHORE UNIVERSITY OF MANAGEMENT AND SCIENCES (LUMS)

Lahore, Pakistan

06/2013 - 07/2013

- Designed curriculum and tutored group of underprivileged students at a charity summer school.
- Planned and supervised educational group activities for students, such as memory exercises, and number games.

Skills and Achievements

AWARDS

2013 **Best Intern Award**, LUMUN - Social Responsibility Program

Lahore, Pakistan

2012 **43rd Position Nationally**, Kangaroo International Mathematics Contest

Lahore, Pakistan

2017 **Cultural Understanding and Diversity Award**, Jacobs University Bremen

Bremen, Germany

PROGRAMMING

Advance knowledge: C, C++, Java, SML, Scala, JavaScript, \LaTeX , Git, Multi-Threaded Programming, HTML, CSS

Working knowledge: C#, Python, R, Matlab, MySQL, Prolog, Processing, Arduino, HTML5, PHP, XML, JSON, Unit Testing

PC KNOWLEDGE Linux, Apache, REST, AJAX, Embedded Systems, Solidworks, MATLAB, ROS, Django, Microsoft Access, Excel, Word, and PowerPoint.

LANGUAGES

English second language

Punjabi working knowledge

German basic knowledge

Hindi working knowledge

Urdu mother language

INTERESTS AND HOBBIES Books, Badminton, Oratory, Event Management, Poetry

S. Shabbar Raza

Shabbar Raza

Bremen, December 7, 2017.