# SHAMSA ABID

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### **CAREER OBJECTIVES**

To work in the area of big code and code recommendation systems and develop tools and technologies to enhance software developers' productivity. To lead research projects as an academic or industrial researcher.

# **ACADEMIC BACKGROUND**

#### Lahore University Of Management Sciences, Lahore. www.lums.edu.pk

MSCS, Major in Computer Science, 2013 CGPA: 3.77 Deans Honor List

#### Punjab University College Of Information Technology, Lahore. www.pucit.edu.pk

MSc CS, Major in Computer Science and Software Engineering, 2004-2006 CGPA: 3.41

### Lahore College for Women University, Lahore. www.lcwu.edu.pk

BSCS, Major in Computer Science and engineering, 2000-2004 CGPA: 3.33

### TECHNICAL SKILLS

Languages	Java, R, C, C++, C#, VB.Net, ASP.Net, SQL
Database	MySQL, Oracle, Mongo DB, MS SQL Server, SQLite, TeraData, Access
Scripting/Markup Languages	HTML, CSS, XML, JavaScript, XAML, AJAX, Jquery
Development Tools	Eclipse, R Studio, Android Studio, Visual Studio .Net, .Net MVC, NetBeans, RoR,
	MS SSIS, SSAS, SSRS, Crystal reports, FrontPage, Lint, Cocos2d-x, box2d
Miscellaneous Applications	Erwin, Rational Rose, MS Office family, Visio, Balsamiq Mockups, Latex
Version Control	Git, GitHub, TortoiseGit, TortoiseSVN
Graphics Tools	Photoshop, GIMP, Texture Packer, Physics Editor, Flash MX, CorelDraw
Quality Assurance	Automated Testing using Selenium, JUnit
Project Management	Asana, MS Project

# **ACHIEVEMENTS & DISTINCTIONS**

- Certificate for Runner up Poster (Computer Science) SBASSE PhD Colloquium 2016
- Deans Honor List Award (LUMS 2013)
- Outstanding TA Award ( Software Engineering LUMS 2013)

# **EXPERIENCE**

Research Organization: Lahore University of Management Sciences

From: Sep 2015
To: Present
Designation PhD Student

Responsibilities: Performed research in the area of code reuse and recommendation systems. Developed a code

search and recommendation system for software developers using Eclipse IDE and PDE, Lucene,

Antlr 4.0, MySQL server, SPMF library and R.

JOB Organization: NUCES FAST

From: Sep 2018
To: Dec 2018
Designation Visiting Lecturer

Responsibilities: Taught Web Programming using the MEAN stack.

https://github.com/CS-A-11/CS406WebProgrammingCourseFall2018

Organization: Kinnaird College for Women, Lahore

From: Jan 2015
To: May 2015
Designation Visiting Lecturer

Responsibilities: Taught Software Quality Assurance course to undergraduates

Mainly responsible for conducting lectures and preparing slides and reading material along with grading

Organization: Techlogix Pvt. Ltd.

From: Aug 2013 To: Oct 2014

Designation Senior Software Engineer

Responsibilities: 

Worked as a senior developer and lead along with a team of 4 junior members.

- Performed team task allocation and management of development activities. Guided the development team to perform the tasks and ensured the adherence to user specifications.
- ➤ Helped the team refactor code and follow conventions and design principles. In charge of conducting code reviews. Helped timely delivery of product.
- Participation in documentation, code refactoring & reviews at the time of product deployment.
- Performed R&D for the storage library for Android synchronization functionality, development of sync utility for master data transfer, SQL server side programming for reports and server side programming for management operations and transactional reports.
- Performed requirements analysis and design of complete application and development of collection module. Requirements gathering involved onsite meetings with customer.
- Worked as a senior resident engineer onsite for providing immediate support to the customer.
- Involved in solving real time issues, maintaining and enhancing the desktop application and Android mobile application with changing requirements or business needs.

Organization: Lahore University of Management Sciences, LUMS

From: Aug 2012 To: December 2014

Designation Teaching Assistant Design Patterns and Refactoring, Software Engineering, Introduction to

Computing

Responsibilities: Mainly responsible for designing and grading quizzes, assignments and managing student

projects

Organization: Beaconhouse National University

From: Aug 2012
To: Dec 2012
Designation Visiting Lecturer

Responsibilities: Taught Creating Digital Content to undergraduates

Mainly responsible for conducting lectures and labs and preparing slides and reading material along with grading

Organization: Defence Public School for Boys

From: Feb 2011 To: Jun 2011

Designation Teacher Computer Science

Responsibilities: Worked as a full time teacher and taught Computer Science and English to 6th, 9th and 10th graders.

Mainly responsible for preparing class activities and lessons. Preparing and grading tests and exams, checking copies.

Organization: Xavor Pvt. Ltd.
From: Apr 2007
To: Sep 2007

Designation Software Engineer Responsibilities: > Worked on a

- Worked on an integration project for a US based Fortune 100 company. The goal was to develop a web service for integrating two different Defect Tracking Systems.
- Worked as a developer on a small module of the project to create a web service using the IBM ClearQuest API to expose certain functionality of the underlying ClearQuest databases.
- Worked on a web development project for a US based Fortune 100 client for their Product Life Cycle Management System.
- Involved in the database design, screen design and code behind web pages.
- Worked on a BI solution development project for a US based Fortune 100 client for their Financial system.
- Worked as a BI developer involved in making reports using SQL Server Reporting Services 2005 under the guidance of my team lead.
- > Developed a complete data warehouse for employees' performance analysis. Performed schema design, ETL using SSIS, OLAP using SSAS and finally reporting using SSRS.

### **RECENT PUBLICATIONS**

Abid, S. (2019, August). Recommending related functions from API usage-based function clone structures. In Proceedings of the 2019 27th ACM Joint Meeting on European Software Engineering Conference and Symposium on the Foundations of Software Engineering (pp. 1193-1195). ACM.

CodeEase: Harnessing Method Clone Structures for Reuse - Abid, S., Javed, S., Naseem, M., Shahid, S., Basit, H. A., & Higo, Y. (2017, February). Codeease: harnessing method clone structures for reuse. In Software Clones (IWSC), 2017 IEEE 11th International Workshop on (pp. 1-7). IEEE.

Towards a Structural Clone Based Recommender System - Abid, S., & Basit, H. A. (2016, March). In Software Analysis, Evolution, and Reengineering (SANER), 2016 IEEE 23rd International Conference on (Vol.3, pp. 51-52). IEEE.

Retrieving Design Pattern Usage Examples using Domain Matching - Abid, S., Qamar, Z.,Khan, N., Shayan, M., & Basit, H. A. (2016, December). In Software Engineering Conference (APSEC), 2016 23rd Asia-Pacific (pp. 33-40). IEEE.

Reflections on Teaching Refactoring: A Tale of Two Projects - Abid, S., Abdul Basit, H., & Arshad, N. (2015, June). In Proceedings of the 2015 ACM Conference on Innovation and Technology in Computer Science Education (pp. 225-230). ACM.

#### **RECENT COURSES**

Program Analysis, Applied Statistics, Software Reuse, Machine Learning, Human Computer Interaction, Design and Analysis of Algorithms, Design Patterns and Refactoring, Distributed Systems Software Development, Game Design and Development, Advanced Operating Systems, Computer Architecture

### **GENERAL SKILLS**

- Commitment and enthusiasm
- Willingness to learn
- Teamwork and leadership
- Excellent written/oral communication skills in English/Urdu

# **Trainings and Certfications**

- Conducted: "Achieving SOLID Design by Refactoring to Patterns", Techlogix conducted for the benefit of my development team at Techlogix. August 2014
- Attended: "LUMS iOS Development Workshop", Tintash conducted in LUMS by Mr. Murad Akhter CEO Tintash. Apr 2012
- Attended: "Teacher Training Programme", Teacher Training Wing Education Branch, DHA Lahore
   Mar 2011 Jun 2011
- Certified: "uBuntu Linux User", FOSSAC 2005 PUCIT
- Certified: "French Language Level 1 course", Institute of Modern Languages, Lahore. 2004
- Attended: "Workshop on Enhancing Human Productivity and Communication Skills", Lahore Chamber of Commerce and Industry.
- Attended: "Workshop on Website Design, Development and Advertising", BrainNet Ltd.

# **HOBBIES**

Reading and writing, running, working out in the gym, cooking, baking, calligraphy, photography and driving

#### REFERENCES

Dr Shafay Shamail, Assistant Professor, LUMS
Dr Hamid Abdul Basit, Associate Professor, Prince Sultan University
Dr Suleman Shahid, Assistant Professor, LUMS
Sobia Iftikhar, Solutions Architect, Xavor
Saima Mushtaq, Co-Founder Ommatee
Jaweria Manzoor, Head of Department, Kinnaird College for Women