

# Behroz Sikander

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## Professional Experience

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- Rohde & Schwarz** (Working Student / Software Engineer) **July 2015 – March 2016**  
Project: Research project to replace hardware with emulator for the verification of mobile communication test cases  
Responsibilities: Research, analysis and discussions with team for the possible architecture and design, proposing solutions, implementation and testing against actual scenarios  
Technologies: C++, C#
- Siemens** (Working Student / Software Engineer) **Dec 2013 – July 2014**  
Project: Sixtos is a software that helps research team to view, analyze and manipulate sophisticated X-Ray machine generated 3d reconstructions  
Responsibilities: Added new features, built new tools to help the research team, designed, implemented and tested requirements  
Technologies: Winform, C#.Net, MS SQL, C++
- Sonixx GmbH** (Working Student / Software Engineer) **May 2013 - Nov 2013**  
Project: Keys management software is used to maintain all the keys in a specific building. The software was able to handle multiple floors, locks and buildings  
Responsibilities: Added new forms and linked them with Microsoft Dynamics, maintained the Sonixx main website and linked Sharepoint and PaperToCad application  
Technologies: MVC 3, MSSQL, Microsoft Dynamics, JavaScript
- Systems Limited** (Software Engineer) **Nov 2010 – June 2012**  
Project: Kellwood WebEBA TechRefresh is a custom web based highly distributed CRM built on ASP.Net having integrations with BizTalk, Sharepoint, Oracle financials, SSRS and other third party tools  
Responsibilities: Analyzing requirements, designing solution, Implementation (front/backend), Unit testing, Documentation  
Technologies: ASP.Net 3.5, VB.Net, Oracle 10g, Webservices, AJAX, JavaScript
- Project: COBRAWeb (PNC Bank) was an Intra-net fraud detection and management website  
Responsibilities: Coded complete DAL layer, Exception and Logging frameworks, Documentation, Designed and implemented (frontend/backend) software modules, Communication with team lead and Project Manager  
Technologies: ASP.Net 4.0, C#, MS SQL, OBIEE, IIS
- Project: KellwoodLogistics is a cloud based web application for Kellwood employees and contractors that manufacture goods for Kellwood Company. This application gave complete management options for admins and users  
Responsibilities: Analyzed and Implemented requirements, Communication with team lead, Cloud Deployments, Support  
Technologies: ASP.Net 4.0, C#, MS SQL, Windows Azure

## Big Data Experience

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### Committer and PMC member at Apache Hama

- Implemented round-robin based task allocation strategy (Jira ticket: <https://issues.apache.org/jira/browse/HAMA-900>)
- Contributed in terms of documentation and technical articles ([techroz.com](http://techroz.com))

### Master's Thesis

- Configured HDFS and Hama on Docker and OpenNebula
- Configured VMs to fully distributed mode while solving firewall, network card, memory leak and dynamic IP problems
- Managed a cluster of 10 nodes running distributed convex optimization algorithm
- Developed good understanding of Bulk Synchronous Parallel model (BSP) for designing parallel algorithms

### H-Store / VoltDB

- Studied the distributed, opensource, in-memory and row-based relational database called H-Store
- Gave a seminar presentation and wrote a paper discussing the scalability, fault tolerance and availability features of the system

### MapReduce and Spark

Good understanding of MapReduce and Spark developed during thesis

## Skills

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**Languages** C#.Net (3 year, Advance), Java (1.5 year, Good), C++/VB.Net (1 year, Basic), Ruby/Swift (6 months, Basic)  
**Self Taught** HDFS, Apache Hama, Windows Azure, Azure Reporting, Scraping, UI Automation (Web, Desktop), Drupal, Wordpress, Photoshop, Entity Framework, LINQ, Basic Windows Phone development

<b>Frameworks</b>	ASP.Net (2 year, Advance), MVC 4 (1 year, Good), Winform (1 year, Good), Windows Azure (1 year, Good), WCF (1 year, Good), LEDA (6 month, Basic), Apache Hama (1 year, Good)
<b>Databases</b>	MS SQL (3 years, Good), Oracle 10g (1 year, Good), MySQL (6 months, Basic)
<b>Knowledge of</b>	MapReduce, Spark, XML/XSD, Javascript, jQuery, AJAX, HTML, CSS, jQueryUI
<b>Tools</b>	Visual Studio, Eclipse, SQL Server
<b>Methodologies</b>	Waterfall, Scrum
<b>Interests</b>	Design patterns, software design and architecture, big data, reading and writing about technology

## Education

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<b>Technische Universität München (TUM) - Munich, Germany</b> <b>Masters in Informatics (Computer Science)</b> <b>Major:</b> Software Engineering <b>Minor:</b> Distributed Systems, Algorithms and Data Structures	<b>April 2013 – Feb, 2016</b> CGPA: 1.6/5 (1=highest; 5=lowest)
<b>University of Engineering and Technology(UET) - Lahore, Pakistan</b> <b>Bachelors in Computer Engineering</b> <b>Major:</b> Software Engineering, Computer Science <b>Minor:</b> Electrical Engineering	<b>Sept 2006 – Jul 2010</b> CPGA: 3.24/4 (1= lowest; 4=highest)

## Academic and Freelance Projects

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### Distributed Convex Optimization Framework Based on BSP Model (Master's Thesis – Java, HDFS, Hama, CPLEX, OPL)

- Implemented EVADMM algorithm on Apache Hama
- Configured and deployed the algorithm on a cluster of 10 nodes running Apache Hama and Hadoop in fully distributed mode
- Analyzed the scalability and runtime behavior of algorithm in terms processing power and data
- Created a cost model for EVADMM
- Wrote a framework to solve similar distributed convex optimization problems using Apache Hama

### Bionic – The Humanoid robot ( Bachelors Final Year Project)

- Implemented multi controller architecture (using PIC16F877A)
- Shortest path planning in a real environment using A\* algorithm
- Face recognition by image processing
- Desktop application that combined face recognition and A\* algorithm
- Dynamic obstacle placement and recalculation of path

### TUMitfahrer Notification Engine (RoR, Java, PostgreSQL)

- Implemented a scalable notification engine that pushes notification to multiple devices (Android, iPhone, smart watch and car)
- Implemented a Java application on top of OSGi framework to consume notifications on smart car

### Windows Azure based Data Entry website (Windows Azure, SQL Azure, Blob Storage, ASP.Net C#, Ajax, jQuery)

- Migrated an ASP.Net application to Azure cloud platform
- Used blob storage for image saving
- Managed sessions across multiple instances

### Migrated Complex Distributed Application to Cloud (WCF, WPF, Windows Azure, SQL Azure, Azure Reporting, ASP.Net)

- Migrated an ASP.Net application to Azure cloud platform
- Migrated 2 WCF webservices to cloud platform
- Hosted multiple reports on cloud platform
- Integrated all the application with a single SQL Azure database

## Achievements

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### Bionic (Final Year Project)

- 1st Prize (APEEC National Engineering exhibition UET, Lahore 2010)
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- 2nd Prize (SOFTCOM National Engineering exhibition GIKI Topi, KPK 2010)
- 3rd Prize (NASCON National Engineering exhibition NUST, Islamabad 2010)
- PKR 10,000 appreciation prize money from VC of UET

### Extra Curricular Activities

- Outstanding performance award from Systems Limited (October, 2011)
- Vice President of BugX (Student organization for Computer Science students)
- Volunteered for AllyFoundation.org.pk website design, development and management
- 2nd Prize CS 1.6 gaming tournament hosted by Electronic Club at APEEC UET, Lahore 2010
- 3 times Counter Strike 1.6 champion UET, Lahore (2007, 2008, 2009)

## References

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