

Shahzad Khan

Lecturer | ICT Professional

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PROFESSIONAL SUMMARY

I have been serving Institute of Business and Information Technology (IBIT), University of the Punjab since 2012 as permanent faculty, as well as serving the industry as System/Business Analyst. Along with training the next generation of ICT professionals, I have designed, developed, and deployed ERP Systems using both Web and Mobile (Hybrid) technologies. I have helped several businesses with custom solutions for their procurement, inventory, sales, marketing, HR, accounting, and finance.

I have developed scalable applications to cater growth and high user traffics. I have worked with businesses on requirement gathering, data modelling (for OLTP and OLAP), software design, back-end & front-end development, reporting, and BI dashboards. I have developed robust and secure APIs, as well as, integrated external APIs into existing systems.

Tools & Techs

- MS Power Platform
- C#, asp.NET, Php, Python, Dart, DAX, JS/jQuery, HTML, CSS/Sass
- MSSQL, MySQL, SQLite, PostgreSQL, DB2, MongoDB, Firebase
- SSIS, SSAS, SSRS
- Excel, PowerBI, Tableau
- Talend, Pentaho
- SPSS Modeller, Weka, Pandas, AZURE ML
- AWS, AZURE, SAP BTP
- ARIS, ERWIN, ERStudio, SSMS, Workbench
- React, Next, Node, Django, Flask, Laravel
- GitHub, Bitbucket

SKILLS

- System Analysis and Design
- Requirement Engineering
- Process Engineering
- UML, BPMN2.0, EPC
- ERDs, Relational Modelling, DW Modelling
- Story boarding, functional prototyping
- Responsive UI/UX development.
- Agile, SDLC
- System Deployment
- Test Planning
- Training design, development, delivery, assessment, and evaluation for internal and external customers

COMPETENCIES

- Written and Verbal Communication
- ICT Training
- Course planning and delivery
- Assessment development and delivery
- Rubrics and Marking
- Problem solving
- Business acumen
- "I can do it" attitude
- Business and technical presentations
- Empathy
- Working on multiple projects
- Agile and adaptive
- Academic Research
- Industry Research

ACHIEVEMENTS

• BOBApp – Business On/Off Boarding Application (MS Power Platform)

During the migration of SharePoint Intranet to SharePoint Cloud, Whangarei District Council (WDC) faced the challenge of converting their legacy business on/off boarding process involving several departments. I, along with a team member, proposed to digitally transform the process using MS Power Platforms (Power Apps, Power Automate, Dataverse and Power BI). I redesigned, developed, and deployed the UI/UX in the PowerApps while my teammate migrated the workflows to Power Automate. The app was first digital transformation project for WDC and highly appreciated at all levels for being responsive and fully integrated with MS365 suite of application, especially MS Teams. One of the comments from ICT manager was "We asked for Fiat and Shahzad has developed a Porsche with gold plating".

- **Winner of Deloitte Postgraduate Case Competition 2019**

I won the first position in solving the business case for a non-profit organisation. I competed as an individual against several other teams in this competition. My solution was focused on using contemporary methods and technologies to raise awareness, community, collaboration, and funds for this charitable organisation. My proposed solution adopted gamification principles with fusion of social media, AR/VR, and real-life experiences.

- **Centralised Online Management System (COMS) for Mahmood Sons**

Design, development, deployment, training, and maintenance of COMS in LAMP stack.
30% cost reduction in procurement, warehousing, and inventory handling
15% increase in sales conversion and 10% reduction in uncollected customer credits
40% reduction in wrong and delayed deliveries
30% reduction in accounting errors through rule setting and automation
Time saving on reporting and analytics catering procurement, inventory, sales, and accounting
Data security and privacy by role-based access
10+ years of continued relationship

- **10hr/week time saving through automation and integration for 3DMAX LTD**

Implementation of internal ERP system (I customised an earlier developed system)
Integration of online sales channels (Trademe and OpenCart) into internal system
Reporting and analytics for inventory and sales in PowerBI

- **Increased sales and profitability using Market Basket Analysis (MBA) for GBMuller Max**

Data modelling and ETL from internal system and external sources for MBA
Up-Selling, cross-selling, and bundling recommendations using MBA

- **2000+ software developers trained, with 60% increase in graduate hiring, 10x more freelancers**

Tutored and trained more than 2000 young software developers in undergraduate and graduate courses taught/tutored at University of Auckland, University of the Punjab, and NorthTec.
Inspired, trained, and upskilled learners on problem solving, critical thinking, and design thinking
Hands-on training of .NET and LAMP full stack development including API development.
Taught and trained learners on Kimball data warehousing with labs in MSSQL, MySQL, Talend, Pentaho, SSIS, SSAS, SSRS, Tableau, PowerBI, and Google Data Studio.
Supervised industry Software / I.T. projects at undergraduate and graduate programs
Achieved highest graduate placement within software houses for software developers, software quality assurance, ETL executives, and business development executives.

WORK EXPERIENCE

Lecturer (I.T. with Finance), Institute of Business and Information Technology, PU (Oct 2012 – to date)

IBIT offers a blend of I.T. and Business (Marketing, Management and Finance) programmes. It is well-placed among the highest-ranking public universities of Pakistan. I am serving as a permanent faculty since 2012, and during my tenure I taught I.T. courses as well as undertook management responsibilities.

- I taught following courses and provided hands-on training to the learners in practical labs for the same:
 - Programming (C#, Php, JavaScript, HTML, CSS)
 - eCommerce (Joomla, WordPress, Facebook, Amazon, OpenCart, Woo Commerce)
 - Data Warehousing (Kimball, MS SQL, MySQL, Talend, DW Schemas, OLTP, OLAP)
 - Software Engineering (Requirement Engineering, System Modelling, UML, WinForms Apps)
 - Software Quality Assurance (Test Planning, Manual and Automated Testing, SVC)
 - Management Information Systems (ERPs, CRMs, HRMs, TPS, DSS)
- I served several management teams in different capacities:
 - As the chairman (Team Leader) of Sports Society, I organised sports events and managed department's sports teams for inter-department competitions.
 - As executive member on Procurement Committee, I evaluated procurement requests and EOIs.
 - As executive member on Discipline Committee, I counselled students on disciplinary conduct.
 - As executive member on Academic Board for department, I recommended improvements in the I.T. courses to keep them current and aligned with skills required in industry. The role required liaising with industry partners and stakeholders.
 - As executive member on placement and career development committee, I liaised with industry partners to place students on internships and graduate positions. Our team also conducted annual hiring event and on-campus interview events sponsored by industry partners.

System Analyst, Whangarei District Council (May 2022 – May 2023)

Whangarei District Council is a public organisation servicing ratepayers of Whangārei, NZ. as a System Analyst within the ICT projects team.

- I liaise with internal and external customers of the organisation for design, development, improvement, and integration of ICT systems. Although the role is defined as a System Analyst, I am often provided with opportunity to act as Business Analyst and/or Analyst Programmer for the tasks I work on.
 - Business Transformation contributions by design and development of new BoBApp (Business on/off Boarding Application) using MS Power Platform
 - Design, Development and Deployment of Cemeteries App (CemApp) in MS Power Platform
 - Design, Development and Deployment of Cemeteries Search app for public in MS Power Platform
 - Digital Transformation contributions to SharePoint and MS365 implementation
 - Implementing Smart Guest Management System for external users of the systems
 - Improvement and addition of new features to Health and Safety, Training, and Rates System
 - Training of internal users on Infrastructure Asset Management and Work Order Management modules
 - Minor improvements and troubleshooting within the CiA TechOne ERP System
 - Supplier on-boarding process automation using MS Power Platform with CiA TechOne Integration

IT Tutor, NorthTec (Jan 2020 – April 2022)

NorthTec is the only Northland-based Tertiary Education Institute (TEI) that provides programmes ranging from foundation, certificate, diploma, and degree levels. I was teaching Software Development, Web Design and Development and Business Information Systems courses at NorthTec.

- I was the lead tutor for Software Development (Level 6) diploma courses, including but not limited to:
 - Programming (C#, Python, Php, JavaScript)
 - Web Services and Design Methodologies (API Development in C#, Php, MS SQL, MySQL, JS, JSON)
 - Databases (MS SQL, MySQL, ERDs, Relational Models, Indexes, Referential Integrity)
 - I.T. Project Management (Project Planning, Scheduling, Costing, Time Estimation, Agile SDLC)
 - System Analysis and Design (Information Gathering, Workflow and Activity Documentation, Use Cases, Domain Models, Class Models, DB Models, User and System Interfaces, SDLC, OOD, DB Architecture, System Architecture)
- I supervised and mentored I.T. industry projects for Software Development and Business Information Systems
- I also undertook assessment moderations, orientations, exams, marking and results.

I.T. Tutor, Department of Information System and Operation Management, UoA (*Sep 2017 – May 2020*)

ISOM (UoA) combines the study of information systems, information management, business analytics, and operations and supply chain management. I assisted the professors in research and development of lab materials for courses listed below.

I also taught the lab sessions for these courses:

- Adaptive Enterprise Systems (SAP, ARIS, SPSS Modeller, BPMN2.0, EPC)
- Data Mining and Big Data (SPSS, PySpark, AZURE ML, PowerBI, Tableau, Weka, Pentaho)
- Databases and Business Intelligence (MSSQL, SSIS, SSAS, SSRS, MS Excel, PowerBI)
- Business System Construction (ASP.NET, C#, HTML/CSS, JavaScript, MS SQL)
- Solution Architecture (MS AZURE, ArchiMate, TOGAF)
- LANS, WANS, Wireless Infrastructure (CCNA)
- Quantitative Analysis (Statistical Inference, Estimation, Linear and Multiple Regression, Optimization, Sensitivity Analysis)

I.T. Consultant, SKXofts International (*Contracting since 2010*)

SKXofts is an IT outsourcing and consultancy company providing I.T. services, including but not limited to software development, database/data-warehouse design, and development, UI/UX designing, professional writing, computer networking, cloud engineering, digital marketing, business intelligence and analysis services.

- Initiated the consultancy in 2010 and served as CTO until 2016
- Designed, developed, deployed, and maintained several long-term business applications
- Established a successful web-based ERP from scratch
- Hired, trained, and managed a team of freelancers for related services
- Established computer networks with 99% uptime for SME clients to host and use web-based ERPs
- Undertook requirement engineering, business analysis, process engineering, network design, app development, and project management
- Established partner networks with other software houses to cater corporate clients like pepsi.co

EDUCATION & QUALIFICATIONS

Ph.D. Information Systems, The University of Auckland (*Apr 2017 – continued*)

I am designing and developing an Integrated Intelligent City Resource Planning (IICRP) Systems in my Ph.D. research. It is based on the principles of Design Science Research (DSR) and Insider Action Research (IAR) adopted for Collaborative Systems in a Multi-Enterprise organizational structure. Organisations like city governments, district councils and regional councils can benefit from my research to better service the ratepayers and citizens.

Master of Business and Information Technology (I.T. and Finance), University of the Punjab (*May 2012*)

I gained business acumen and developed a solid foundation in business information systems, data warehousing, financial analysis, business analysis and I.T analysis. This qualification significantly improved my communication skills and helped me in applying my software development skills to SMEs. I developed a web-based ERP system as FYP. In my research project, I developed a framework for Semantic Web.

Bachelor (Hons) Computer Science, Hajvery University (*Mar 2008*)

I gained my key software development skills in this program. It enabled me to understand the theory and practice of problem solving, programming, databases, networking, software quality assurance, and system architecture. I contributed to a University Management System as asp.NET developer for the FYP in this program.

AWS Fundamentals Certification – Coursera (*Sep 2020*)

This certification trained me on setting up and securing cloud service on AWS, as well as building serverless applications in AWS environment. The certification includes following courses:

1. Going Cloud-Native
2. Addressing Security Risk
3. Migrating to the Cloud
4. Building Serverless Applications

SAP Developer Missions Training – openSAP (*May 2020*)

My interest in SAP was developed from inter-organisational information systems. The following trainings enabled me to develop a workflow based in SAP Cloud Business Technology Platform.

1. SAP Fiori App Development and Deployment on SAP BTP
2. Business Rules, Process Visibility, and Workflows on SAP BTP
3. SAP UI5 App Development with own Dev Tools for SAP Launchpad/Site Manager

CCNA Certification – Cisco Certified Network Associate - Cisco, USA (*May 2008*)

This certification enabled me to design computer networks (WAN, MAN, LAN, WLAN, VLAN) in Cisco Packet Tracer network simulation app. I also did hands-on labs on actual CISCO devices. I utilised the skills learned from this certification in designing network architecture for web-based ERP solution and end-to-end deployment of COMS for Mahmood Sons.

Microsoft Power Platform App Maker

I am currently working towards certification of MS Power Platform App Maker. The training is almost complete and being hands-on with commercial projects using PowerApps, Power Automate, Power BI, Power Pages, and Dataverse, I am confident that I will soon get this certification in my belt.

Key Projects

ProSantile ERP - Demo Available (Multiple custom deployments)

ProSantile is a responsive web-based ERP system that empowers Small and Medium Enterprises (SMEs) with online management of procurement, inventory, sales, accounts, and reports.

Investment Management System (Real Estate) – Demo available

IMS is a responsive web-based application that provides a simple and easy-to-use interface for investment management. This app was designed and developed for business owners and investors with zero or very low computer literacy. The app is developed for real estate agencies, but it can be used by any investor or portfolio manager.

ProSantile Accounting MobileApp – Demo available

This app provides easy-to-use basic accounting features using double-entry accounting rules. It features Chart of Accounts, Accounting Voucher Management, and Financial Reports (Income Statement, Balance Sheet, Owner Equity Statement, Cash Flow Statement).

Sales MobileApp – Demo available

This app is designed and developed for outdoor sales agents visiting client sites. It is based on local-first principle and seamlessly syncs with central cloud system. It empowers a sales agent with dashboard, customer accounts and ledgers, orders, invoices, payments, stock availability check, estimate creation, invoice generation, and payment collection.

REFERENCES

References will be provided as and when requested.