



SUHAIL MUKHTAR

Summary

- Technology leader with 20+ years of experience in the commercial software industry
- 4+ years of software development management and 10+ years technical leadership experience
- 20+ years of full stack software development experience primarily in C++
- Creative thinking, Goal setting, and very strong Problem Solving & Analytical skills
- Vast experience in requirement gathering, system analysis, Object Oriented design and implementation
- Highly skilled in managing/planning development work of a product from roadmap to delivery
- As technical leader providing innovative solutions to the teams complex problems
- Expert in designing tailored solutions to the customer problems ensuring their satisfaction
- Well experienced in managing product backlog, team's workload, resource allocation and planning
- Extensive knowledge of software development framework implementations including SAFe
- Proficient in maintaining various Productivity goals and software development KPIs Dashboard
- Good experience in Product and Project management including Offshore Project
- Fully versed in making presentations and developing documentation.
- Ability to communicate ideas to all levels of management, customers and cross-functional teams.

SKILLS HIGHLIGHT

LEADERSHIP/MANAGEMENT:

SAFe Implementation, SW Development KPI Dashboards, PI Planning/Execution, Resource Planning and Allocation, Budget Tracking, Release Management, RCA Tracking, Risk Management, Product Support Management, Product Delivery and Deployment, Cloud Transformation, Customer Projects Management, Agile Ceremonies, Offshore Project, Build Pipeline, Hiring

TECHNICAL LEADERSHIP :

Product SME/Architect, Product Backlog Grooming, Epic/Story Breakdown, Dependency Management, Products/Services integration, Product UI/UX Designing, Mentoring, Product Deployment Models, Features Requirement Gathering, End-to-End SDLC, AWS POC

TECHNOLOGY :

Languages : C++ (Primary), C#, Javascript, PHP, Perl

Web Tech : HTML 5, JQuery, Angular JS, AppCache, XML, SOAP, REST, FCGI, CSS, Apache, IIS

DB & Others : Mysql, MS SQL Server, ODBC, ADO.NET

Tools : Agility (Version One), JIRA, Confluence, Power BI, MKS, GIT, SVN, Yum, Jenkins, Visio

EDUCATION :

M.Sc.	Computer Science	IIUI, Pakistan	1996-1998
B.Sc	Major Math A & B, Physics	Punjab University, Pakistan	1992-1995
Distinctions:	Maintained overall 3rd Position	in Masters with GPA 3.65/4.0	

EMPLOYMENT HISTORY

NAVBLUE (AN AIRBUS SERVICES COMPANY), (WATERLOO, CANADA)
'22

MAY'06 To FEB

SW DEVELOPMENT TRIBE LEAD, CREW PLANNING SOLUTIONS

DEC '19 To FEB '22

Responsible for managing software development activities of Crew Planning Product (N-PBS) and related Release Train squads. Being Product (N-PBS) SME acted as technical leader for all its needs. Also additionally worked as Scrum Master and Sr. Developer resource of the squad.

❖ N-PBS (Preferential Bidding System)

N-PBS is a seniority-based crew rostering system that combines manpower productivity targets with crew member work preferences and flight authority rules. Using N-PBS crew members such as pilots and flight attendants can bid on the schedules for their next monthly working cycles using multiple parameters, such as personal preferences, seniority and airline requirements. It has multiple scheduling modules to address different scheduling needs of an airline e.g. (Trips, Training, Pre-build Lines). The application offers tons of options which are highly configurable to accommodate the needs of various customers.

Tech Stack: Linux, C++, PHP, Javascript, Angular JS, Perl, XML, JSON, MySQL, Apache

Tasks:

- **Management/Leadership :**
 - Created / maintained / Presented SW Development KPI Dashboards
 - Participated in various operation level meetings and represented the tribe / product
 - Worked with Product Management, RTE and Solution Architects on PI Planning
 - Responsible for planning and allocation of resources to the squad for a PI
 - Managed the workload for resources of the squad and collaborated with other stakeholders
 - Did track the software factory budget for the product (Planned vs Actual)
 - Managed the N-PBS release cycles including hotfixes / ad-hocs
 - Ensured the Product was delivered and deployed to the customer as expected
 - Assisted Product Management in the customer meetings related to projects/support
 - Streamlined the work required to deliver any (new/existing) customer projects
 - Managed the allocation and handling of product support ticket
 - Responsible for doing root cause analysis (RCA) on any support items if required
 - Collaborated with the build team for transitioning code repo from SVN to Git in new form
 - Worked with the build team to flush out any N-PBS pipeline needs and ensured its readiness
 - Monitored and facilitated the the regression activity to meet the release deadline
 - Collaborated with all the stakeholders in creating the documentation for the release
 - Ensured the work to transition N-PBS from private cloud to AWS was scheduled and on track
 - Registered any PI/Project risks and managed them during the execution/implementation
 - Presented squads monthly survey results to the squad and discussed it with the team
 - Organized the collaboration between different product squads to share the workload
 - As part of company's long term vision, merged two optimization squads working on two products
 - Involved in screening and hiring of the new software development resources
- **Technical Leadership :**
 - Being N-PBS SME with 15+ years experience acted as N-PBS technical lead / System Architect
 - Worked with Product management to groom backlog containing new features / epics / CRs
 - Played key role in breaking stories and streamlining the dependencies
 - Groomed all UI/integration/infrastructure/reporting/services/enabler stories
 - Led all recent changes to UI/UX to the three interfaces (Two Bidder Apps and Admin App)
 - Solely responsible for crew management system integration(recently integrated with two systems)
 - Worked with many customers/PMs to gather the new feature/integration/deployment requirements
 - Designed N-PBS Deployment model specifications for various customers based on their needs
 - Managed the services scaling, optimization and performance of a deployed N-PBS system
 - Assisted the sales team in sales pitch and answered technical questions
 - Responsible of filling out technical details of an RFP for the N-PBS
 - Worked with solutions team on N-PBS needs for AWS lift-n-shift transition
 - Guided the squad to manually deploy the N-PBS on AWS sandbox for prototyping
 - Improved the N-PBS database upgrades for multi-tenant system by making it seamless and faster
 - Led the tight integration with N-OC so that data could directly be pulled into N-PBS
 - Designed the REST API for other systems to pull the data from N-PBS & lead the team to create it
- **Scrum Master :**
 - Continued to be Scrum Master for the squad
 - Facilitated all agile ceremonies (Grooming, Daily Scrum, Sprint planning etc.) for the squad
 - Helped squad transition from JIRA to Version One (Agility)
 - Worked with PO/PMs on epics/enablers to be showcased in the marketplace for the next PI
 - Ensured the guardrails (RTB/GTB) are respected during the PI planning
 - Led the PI planning sessions and presented the plan drafted in Klaxoon to the Release Train
 - Moved the stories/bugs/enablers to the iterations as planned and created placeholders if needed
 - Created the objectives in the Version one and linked relevant stories to them
 - Tracked the squad's progress in the Version One and Kept all stories/objective up to date
 - Also presented the squad's progress in SOS (Scrum Of Scrum) and prepared for system demo
 - Responsible of closing the stories at the end of iteration and handling carry-overs
- **Development Activities (Sr. Developer) :**
 - As Sr. Developer Organized the training sessions and mentored the new/junior squad members
 - Provided the guidance to the new/junior team members on their tasks (Development/support)
 - Did handle most of the the customer support tickets (all tickets but Award inquiries)
 - Implemented many new features and fixed critical bugs
 - Integrated (Imports/Exports) N-PBS with Jeppesen Crew Trac Enterprise (JCTE) system

- Enhanced Bidding interface with many new bidding options

SCRUM MASTER AND SR. SOFTWARE DEVELOPER

APR '19 To DEC '19

At the start of agile transformation, took on the Scrum Master role while being Sr. Software Developer in the squad. Being Product (N-PBS) SME continued to act as technical leader for many of its needs and also assisted the team lead in many of the management tasks (listed above).

- Led team's transformation to the Agile from Scrum/Waterfall and also from MKS to JIRA
- Helped the team to adapt the new Way-Of-Working (User Stories/Spikes/2 Weeks Sprints etc.)

SR. SOFTWARE DEVELOPER

MAY '13 To DEC '19

I was mostly responsible of maintaining and enhancing all N-PBS components except Awarding Process (i.e. Three Web UIs, Back-end Services, Product integration Imports/Exports, Reporting, Infrastructure/Database and Deployment). My major tasks included requirements gathering/analysis, Writing functional specifications, Design the solution, Tasks analysis/breakdown and Implementation. I was also providing N-PBS support to the customers.

One of my major achievements was to build a new bidder Web App with the help of an offshore contractor's team (I played a key role). However my contribution was not limited to N-PBS, Also participated in the development of the new applications (NCDIS and Package Downloader).

❖ N-PBS Web App - Bidders UI (Offshore Project)

(2014-2015)

An HTML5 Web interface which allows crew members to check their schedule, search trips/trainings/lines, create and submit their bid preferences. It also offered an offline mode.

Tech Stack: HTML5, Angular JS, CSS, AppCache (Service Workers)

Tasks:

▪ Management / Technical Leadership

▪ Business Analysis Phase:

- Presented the existing system N-PBS Desktop App to the L&T team
- Wrote the full functional requirements of the new application and updated them as needed
- Presented the requirements to L&T team and helped them to understand the required functionality
- Participated in various meetings to go over the project plan including deliverables

▪ Design Phase:

- Reviewed the system design and UI Wireframes
- Suggested various UI design changes after consulting the internal product team
- Changed the look and feel (Colors, icons, layout) of the UI
- Worked with both internal and external teams to get the required designs approved.

▪ Development Phase:

- Setup weekly and (on demand) meetings to oversee the progress and answered any inquiries
- Suggested alternative solutions for any technical hiccups
- Facilitated the development process by setting up the demo/development server for L&T
- Setup the QA machines and installed the sprint releases
- Created and maintained document containing issues list
- Helped our QA team to better understand the new Web App and test it efficiently.
- Served as main contact between both teams (our QA and L&T) to facilitate the process
- Reproduced the QA issues, prioritized them and helped L&T to understand them better
- Performed preliminary testing of the new features and every fixed issue before passing it on to QA

▪ Development Activities (Sr. Developer)

▪ Post L&T Final Release Phase:

- Did a gap analysis and created a list of the gap development tasks and implemented them
- Worked with QA team to prepare the first release
- Coordinated with the Customers about potential enhancements and bugs
- Hosted the Web UI breakout session in the PBS User Conferences 2015/2016

❖ NCDIS (NAVBLUE Charts Data Information System) / NCIM

(2012-2014)

System would allow customers to manage the chart revision, bundle them and create a package which could be sideloaded into the cockpit system via USB or downloaded through Package downloader (NPD) Service onto iPads/windows devices. System would also manage the devices registration, status and flag them for an update.

Tech Stack: Windows Server, C#, IIS, .NET framework, JQuery, MS SQL Server.

Tasks:

- **Technical Leadership / Development Activities (Sr. Developer)**
- *Business Analysis Phase:*
 - Participated in Requirement gathering and Analysis phase with the Cathay Pacific
 - Maintained the Requirements document during that phase
- *Design Phase:*
 - Created workflows and added flowchart diagrams to the document
 - Designed the system and created a plan with the team to implement the design
 - Created tasks, broke down the larger tasks into smaller task and assigned them to the team
- *Development Phase:*
 - Ensured that each task was meeting the requirement and adhering to the design
 - Set up a framework and directory structure for the project
 - Designed the complete User Interface including Look and feel
 - Found all the required open source widgets used in the UI
 - Developed the major part of UI and core communication interfaces
 - Created the desktop app to setup the system
- *Release Phase:*
 - Coordinated with QA and Managers during the Testing phase.
 - Analyzed the production issues after the release
 - Trained the other team members about work flows and different data process stages
 - Mentored the junior developers about the product and general development
- ❖ **NPD (NAVBLUE Package Delivery) Service and Download Manager App**

NPD REST API service developed to allow iPad and Windows devices running EFB Solution to connect to NCDIS and download the charts revision packages. Download Manager App would connect to NCDIS via NPD to download the selected charts revision package.

Tasks:

- **Technical Leadership**
 - Worked with other teams to integrate the NCDIS with the EFB solutions
 - Coordinated with other teams (iCharts and eCharts team) for the development on their side
 - Created the communication interfaces
 - Designed the NPD Service and Download Manager App including its UI
- **Development Activities (Sr. Developer)**
 - Developed the NPD Service
 - Lead the Junior to develop the Download Manager App
- ❖ **Other N-PBS Major Projects (All Phases from Requirement Analysis to implementation)**
- Successfully integrated N-PBS to Alaska JCTE , N-OC (RAIDO), and Lufthansa crew rostering systems
- Added the support to import many other new file types to load the data for bulk updates
- New N-PBS module (Lines Bidding System) :
 - Designed the UI for the Web App and led the other team members to develop it.
 - Implemented the new import file types to load the (pre-built) lines data
 - Also added a new export file containing lines award information
 - Other infrastructure/Database work including new reports
- Imported new JBU detailed Crew Trac Pairing files for Pilots
- Enhanced Bidder Web UI with many new Bidding options

INTERMEDIATE SOFTWARE DEVELOPER**MAY '06 To MAY '13**

I was a full stack developer and responsible for maintaining and enhancing many N-PBS components especially Admin UI, Imports, Back-end Services, Reporting, Infrastructure/Database. My major tasks included requirements analysis, Writing functional specifications, design the solution and Implementation. I was also involved in supporting the customers.

During this period, my major achievement was to assist seniors in all activities of developing a new Desktop Bidder UI. Later I designed a new UI for another application ToDC2 and led a team of two to create it.

- ❖ **Major Projects (Development Activities):**
- Integrated N-PBS to AOS crew rostering systems
- Enhanced Admin UI with many new functionalities, Wrote FS, Full Implemented from UI to Database
 - Locations, Run Templates, Crew Advanced Search, Crew Bulk Editing

- Added new bid options to the Bidder UIs (Desktop / Web)

❖ **N-PBS Desktop Bidder Application**

(2007-2008)

A desktop application which allowed crew members to check their schedule, search trips/trainings, create and submit their bid preferences.

Tech Stack: C#, .NET Framework, Windows

Tasks:

▪ **Development Activities**

- o Participated in designing the interfaces and Classes
- o Designed and Implemented the pairing search functionality included Unit Tests
- o Created new back-end services to retrieve the data from the server
- o Implemented many bidding options as per the design
- o Fixed the Bugs after Beta release

❖ **ToDC2 (Digital Charts Client)**

(2011)

Environment: C#, .NET Framework, JQuery

Tasks:

▪ **Development Activities / Technical Leadership**

- o Designed the UI for the client and found the open source widgets for it
- o Led the two member team to create the client web application

NASIT (TORONTO, CANADA)

IT CONSULTANT

SEP '03 To MAY '06

I was responsible for analyzing, designing , developing the school software and website development. I also Instructed the C/C++, Visual C++, C#, Web Development Courses and supervised the projects developed by co-op students.

❖ **ActiveManager Pro & Pro Plus**

It was designed and developed to manage the different schools' data. It allows you to keep track of daily routine work, inquiries about courses, scheduling the classes, managing the student, teacher and staff data (e.g. Fees, Personal info, courses taken). Customized Plus version supported the driving school activities such as issuance of Ministry certificates.

Tech Stack: Windows, .NET, C#, ADO.NET, XML, SQL Server 2000

Tasks:

▪ **Development Activities / Technical Leadership**

- o Analyzed the system and written functional requirements and complete specs for it.
- o Created detailed system and module level Design documents
- o Created complete relational Database and normalize the tables' relationships
- o Designed the Classes and GUI of the system (Windows Form)
- o Developed the scheduling, Courses and student registration modules
- o Supervised the Student, teachers and staff modules' development.
- o Helped to create the test cases for the system

BULLDOG (TORONTO, CANADA)

PROGRAMMER /ANALYST

SEP '00 To DEC '02

I mainly Participated in development of BULLDOG product's new Backend components (Media Plug-in /Processor (MP) & Media Data Store (MDS)) written in C++ based on CORBA and also maintained the existing backend components (MP & MDS) of the Bulldog System.

❖ **BULLDOG (CMS)**

It was an enterprise content management system that allowed users to store, locate, reuse, and repurpose media of all types(audio, video, images, documents). The most common and useful features were cataloging, Inter-asset relationships through its associations, Versioning Control System and many more.

Digital asset management solution provided a bundle of audio, video and image searching, shifting, and sorting customizable tools that allowed users to manage their images, text, audio and video. A variety of clients (web client, java clients) were available on most of the platforms. It provided solutions to the world's most successful media-rich organizations, including BBC, Cablevision, Disney, EMI, Sony Pictures etc.

Environment: Windows, Sun Solaris 8.0, C++, VC++ 6.0, CORBA, XML Parsers

Tasks:**▪ Development Activities**

- Involved in Analysis of the two MPs (PDF/Telestream) and researched the library to be used
- Communicated with the third party about the library matter (our requirements & feedback)
- Then designed and developed the both Media Processors classes.
- Created XML DTD for the configuration file.
- Designed and developed many COM Objects for the API which provided the interface to make use of the functionality of Media plug-in and also to make use of newly created media objects by MP.
- Also Designed & developed the Test Client for MPs & COM API in VC++

DIYATECH PVT. LTD. (US BASED SOFTWARE DEVELOPMENT HOUSE)**SOFTWARE ENGINEER****OCT '99 To JUL '00**

Participated in development of various projects as a developer to design and develop systems and also worked as Network Administrator for some time.

❖ Entropia Client 2.0 (Entropia, Inc. (<http://www.Entropia.com>))

Entropia Client 2.0 was a computing client, Which would run on home/office computers of various models/profiles as a resource of the Entropia virtual machine network. Entropia VM system was intended to achieve a highly distributed environment whereby very large computation intensive tasks were broken down into thousands of sub-tasks and then distributed to thousands of Entropia Clients running on computers across the Internet. The goal was to use the idle CPU time of each computer to perform the computations.

Tech Stack: Windows, Visual C++ 6.0, MTS, ADO & SQL Server

Tasks:**▪ Development Activities**

- Designed the modules (PQueue OLE Structured Storage) using Rational Rose then fully developed them using C++/ATL. There were two storage parts. Static part was used to store the different objects of the system whereas the dynamic part contained a queue of different commands.
- Also Implemented a module responsible for sending http commands to Task(Web) Server via an ASP Page and after executing the command send the results back to the caller.
- Created a setup program for installing the application module and client through wizard as well as silently for upgrade version using Install Shield 6.2

XPERSOFT INC.**PROGRAMMER****OCT '98 To SEP '99**

Initially worked as an Co-op then participated in a project as an individual developer to design and developed the R2V Converter graphic/CAD application and also worked as Network Administrator.

❖ R2V Converter for Mechanical & Geographical Drawings

Software applies different Image processing algorithms on scanned Drawings (Raster Image) Stored in different formats (tiff, JPG, BMP, DIB etc.), Performs Edge Detection and then converts The points on edge to lines and Export those line (vectors) in a CAD format i.e. DXF. Which can be imported in any CAD Tool for further usage. Software can also be used as an image viewer.

Tech Stack: Windows 95/NT, C/C++, Visual C++ 5.0, Rational Rose

Tasks:**▪ Development Activities**

- Worked in a two members team and participated in all phases of SDLC
- Analyzing, designing, development and testing. Also documented all phases.
- Developed the GUI and basic shapes system with the facility of ROP on the shapes
- Worked on Loading and saving an Image Module
- Implemented Few Edge detection methods.
- Exported the lines into DXF Format.

INTL ISLAMIC UNIVERSITY ISLAMABAD**LECTURER****OCT '99 To JUN '00**

Worked as a visiting faculty member for two semesters and taught students C++, Visual C++, Introduction to Computer Graphics Courses.

