Yunus Parvej **Faniband**

Experienced Embedded & Application Software Development Professional · Data Scientist · Technical Architect · Data Analyst · Consultant

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Summary

A Senior Technical professional with 20+ years of experience in architecture, implementation and managing software products on mobile and windows platform. Strong experience in System Software Development, analysis and design, specializing in native Mobile Application development , backend/infrastructure, desktop & web development. Experience in Data Analysis, Predictive Modeling and Data Visualization using Machine learning and Deep learning techniques. A Strong leader , Team player and interested in devising a better problem-solving method for challenging tasks, and learning new technologies and tools if the need arises.

Education

Universiti Putra Malaysia   *Seri Kembangan, Selangor, Malaysia*

Doctor of Philosophy (Ph.D), Faculty of Computer Science and Information Technology   *Feb 2016 - Feb 2022*

   Thesis Title: "Mobile Synchronization Framework to Enhance Large Object Management in Mobile Cloud Storage Service"

Dr. M.G.R Educational and Research Institute   *Chennai, India*

Master of Technology (M.Tech.) in Embedded Systems   *June 2004 - May 2006*

Karnataka University   *Dharwad, Karnataka, India*

Bachelor of Engineering (B.E.) in Electronics & Communication Engineering   *June 1995 – July 1999*

Technical Skills

Programming	Microsoft .NET (C#, ASP.NET), iOS (Objective–C, Swift), C, C++, Symbian C++, Python
Development Tools	Microsoft Visual C++, Visual Studio, Visual Studio Code, Eclipse, X-Code, Android Studio, PyCharm, Jupyter Notebook, EB Guide Studio, Git, Docker, Kubernetes, Github Actions
Frameworks/Platforms	Microsoft Foundation Class (MFC), Windows Presentation Foundation (WPF), Entity Framework, ADO.NET, Qualtrics Survey Platform, Nuance SR and TTS engine, Qlik Sense, Qlik Analytics Platform, Qlik Sense Developer tools, Open XML SDK for Microsoft Office, FORM (WorldAPP's) Enterprise Data Collection Platform, KeySurvey APIs, Selenium HQ Automation, Dask, MLflow, Gradio
Analytics and BI Tools	Qlik Sense, Qlik Analytics Platform, Tableui, Oracle Fusion Analytics
Cloud Platforms	AWS, Azure, Google Cloud Platform
Web	Javascript, jQuery, Bootstrap, React JS
Database	Microsoft SQL Server, MySQL, PostgreSQL, Redis, MongoDB
Design Tools	Enterprise Architect, Visual Studio, Microsoft Visio
Operating Systems	macOS, Windows Server, Windows 10/11, Linux Redhat
Python	Django Framework, PyQt5
Data Science Packages	Scikit-Learn,Tensorflow, PyTorch, NumPy, SciPy, Pandas, XGBoost/LightGBM, Matplotlib, Seaborn, StatsModels
Statistics/ML	Linear/ Logistic Regression, SVM, Ensemble Trees, Random Forest
Others	Service-Oriented Architecture (SOA), RFID, NFC, CI/CD (Continuous Integration and Continuous Delivery (or Continuous Deployment)), Ansible

Work History

KFUPM - Information & Technology (IT), King Fahd University of Petroleum and Minerals
Dhahran, Saudi Arabia

RESEARCH ENGINEER
February 2010 - PRESENT

- SOFTWARE APPLICATION DEVELOPMENT
- Involved in system software development, analysis and design for Desktop and mobile platforms
- Design and development of web and/or client-server applications using .NET Framework and .NET technologies including: C#, ASP.NET, Web Services, SharePoint, MVC
- Design and implementation of scalable backend services using modern frameworks and languages.
- Development of secure and efficient APIs using RESTful or GraphQL standards.
- Design and development of database schemas that represent and support business processes using relational databases, including MS SQL , MySQL with Entity Framework, ADO.Net and LINQ
- Development of responsive design for desktop and mobile devices using Bootstrap front-end framework and asynchronous request handling, partial page updates using AJAX with localization support for right to left languages (Arabic)
- Design and Development of Microsoft word add-in office solution using Microsoft Office developer tools in Visual Studio using .NET framework and C#, and Word Object model
- Design and Development of Automated Reporting tool to generate reports using Office Open XML SDK for Microsoft office.
- Design and development of Survey questionnaire for hand-held devices using *KeySurvey (WorldAPP) Survey* tool with custom UI using HTML and CSS
- Design and development of Survey questionnaire for hand-held devices using *Qualtrics enterprise Survey technology* provider tool
- Development of responsive design for desktop and mobile devices using Bootstrap front-end framework and asynchronous request handling, partial page updates using AJAX with localization support for right to left languages (Arabic)
- Design and development of native applications on Android , iOS, Symbian Nokia S60 platforms (*Holy Quran Deployment on Mobile and PDA*)
- Design and development of web and/or client-server applications using Python Django framework.
- Architect and deploy cloud-native solutions leveraging AWS, Azure.

- DATABASE DESIGN & ENTERPRISE APPLICATION DEVELOPMENT
- Design and development of database schemas that represent and support business processes using relational databases, including MS SQL , MySQL with Entity Framework, ADO.Net and LINQ
- Design and Development of Database and Business Intelligence System for Market Studies and Indicators Data. Generation of reports for the Survey , ICT and ITU Indicators data using QlikSense data visualization software (*ICT Market Research Study for the Kingdom of Saudi Arabia (2017-2019)*)
- Generation of reports for the Survey , ICT and ITU Indicators data using *QlikSense data visualization software*
- Implementing software module to read RF measurements device data (Narda NDM-550 and SRM-3000) and populate the values to application controls along with validations. (*Field Measurement of Radio Frequency Radiation for the Kingdom of Saudi Arabia*)
- Design and development of custom survey participants management module using KeySurvey APIs with C# .Net to provide access levels and permissions, workflow (*ICT Market Study Project*)
- Design and development of suite of applications used to for tracking research activities of Saudi public and private universities using MySQL database and third party .NET Chart controls and Selenium Web framework for automation
- Design and development of automation scripts used to for tracking research activities of Saudi public and private universities using MySQL database and third party Chart controls and Selenium Web framework for automation .

- MACHINE LEARNING & DATA ANALYSIS
- Involved in Data Analysis, Predictive Modeling and Data Visualization using Machine learning and Deep learning techniques
- *Wind Speed Prediction for Wind Turbine Systems* in Saudi Arabia - Developed and implemented a model for wind speed prediction using various statistical and *machine learning algorithms*
- Chlorophyll-a (Chl-a) Forecasting Using MODIS Data in the Saudi Arabian Gulf (Remote Sensing) - Development and implementation of a comprehensive machine learning pipeline for forecasting Chlorophyll-a concentrations in the Saudi Arabian Gulf using MODIS satellite data.
- Design and development of High-impact academic publication forecasting system using Machine learning
- Analysis of research data in Scopus and Web of Science bibliometric databases to investigate rankings of competitive universities in different subject areas using data science techniques
- Developed advanced reports and interactive dashboards using IBM Cognos and Tableau, enabling stakeholders to gain insights from complex data.
- Proficient in creating custom reports, dashboards, and analytics using Oracle BI Publisher, Oracle OTBI, and other reporting tools
- Enhanced system efficiency by managing data integration and ETL processes for Oracle ERP, centralizing data in a Data Warehouse.
- Produced statistical and ad-hoc reports to support data-driven decision-making across the University.

- OTHER CONTRIBUTIONS
- Involved in Design reviews, Technical document reviews and preparation of documents at all phases of Software Development Life Cycle
- Configuration management and version control using SVN, Git
- Creating technical proposals, requirement Analysis, Estimation process & leading and mentoring a team of engineers.

Tata Elxsi Limited

Bengaluru, India

SENIOR SPECIALIST

June 2007 - January 2010

- Requirement collection of Handheld and Desktop based products at client locations based in Germany.
- Interaction with multiple partners involved in the development of product.
- Worked as a Onsite Technical coordinator for major German clients
- Technical manager of a offshore development team for a major US based client
- Technical lead of a project "Symbian Open Platforms Tools" at the client premises for a major client based in Tokyo, Japan
- Contributed a SCRUM Master role in the project "Symbian Open Platforms Tools"
- Involved in design and development of products based on embedded platforms like Windows CE , Windows Mobile and Symbian (Nokia S60).
- Involved in Design and development of Desktop products based on Windows Vista using C++ , C# , WPF ,Visual Studio, Silverlight, Nuance SR and TTS engine, Charamel Avatar Player, Touch and Handwriting recognition SDKs
- Development of game on iOS platform
- Preparation of Technical project proposals with detailed estimation
- Execute the projects as Technical lead by mentoring and managing the team
- Involved in Design reviews, Technical document reviews and preparation of documents at all phases of Software Development Life Cycle

Symbian Software India Pvt. Ltd (acquired by *Nokia Corporation.* in 2008).

Bengaluru, India

SENIOR ENGINEER | ANALYST

January 2006 - May 2007

- Analyzing the resolving programming and architectural issues existing in the Multimedia Framework (MMF) Multimedia Device Framework (MDF) and Image Conversion Library (ICL)
- Providing engineering/development expertise to assist in solving customer defects in the area of DevSound MMF, MDF and ICL
- Design and implementation of new APIs in Multimedia Framework (MMF)
- Analyzed the root cause and fixed issues related to Audio system
- Secondary Owner for specific sub components in the Multimedia Sub system in Symbian mobile OS and to assist in Issues and their enhancement as per product requirements
- Code Integration management (Catch up and Integration of source code branches).

MphasiS Technologies Ltd

Bengaluru, India

SOFTWARE ENGINEER

December 2003 - December 2005

- As a Offshore Development Center (ODC) team member, providing engineering/development expertise to assist in solving customer defects in the area of DevSound Multimedia Framework (MMF), Multimedia Device Framework (MDF) and Image Converison Library (ICL).
- Member of maintenance team to improve the quality and performance of all the modules in Multimedia subsystem in the Symbian OS (Versions 8.0a, 8.0b, 8.1a, 8.1b, 9.0 and 9.1)
- Involved in Design and Development of a product that perform chromatographic instrument control, data acquisition, data processing and reporting

Caravel Info Systems Pvt. Ltd. (acquired by *Cranes Software International Limited.* in 2007)

Bengaluru, India

SENIOR SYSTEMS ENGINEER

September 2000 - December 2003

- Involved in Design and Development of tools (Two-pass Assembler , Linker, Dis Assembler and graphic Analyzer tool) for a DSP chip that supports massive parallel computation based on matrix and vector operations (Using C, C++ and MFC)
- Involved in a Design and development of a web based enterprise collaboration tool based on COM automation APIs
- Design and implementation of E-Mail module, which interacts with MAPI compliant mail client using MAPI, implemented using C++, COM and ATL.
- Design and development of windows NT service in C++ using MAPI, directory protocols and Microsoft Open Database Connectivity Interface (ODBC), that sends mails and receives mails at configured intervals and stores the mail content in the database server (Microsoft SQL Server)
- Design and implementation of Mail Archiving Component using MAPI, using C++, COM & ATL
- Involved in Design and Development of Freehand Integrated Software Development (IDE) platform that supports the Freehand Software development tools for the Freehand DSP

Publications

JOURNAL ARTICLES

[1] A review of open source software tools for time series analysis
   Yunus Parvej Faniband, Iskandar Ishak, Sadiq M Sait
   arXiv preprint arXiv:2203.05195 (2022)arXiv, 2022

[2] Univariate Time Series Prediction of Wind speed with a case study of Yanbu, Saudi Arabia
   Yunus Parvej Faniband, SM Shaahid
   International Journal of Advanced Trends in Computer Science and Engineering 10.1 (2021)The World Academy of Research in Science and Engineering, 2021

[3] A Cloud-Based Distributed Platform for Secured EPUB EBOOK Contents
   Yunus Parvej Faniband, Iskandar Ishak, Fatimah Sidi, Marzanah A. Jabar
   International Journal of Emerging Trends in Engineering Research 8.10 (2020)The World Academy of Research in Science and Engineering, 2020

[4] NetMob: A Mobile Application Development Framework with Enhanced Large Objects Access for Mobile Cloud Storage Service
   Yunus Parvej Faniband and Iskandar Ishak, Fatimah Sidi, Marzanah A. Jabar
   International Journal of Advanced Computer Science and Applications 10.7 (2019)The Science and Information Organization, 2019

[5] A Review of Data Synchronization and Consistency Frameworks for Mobile Cloud Applications

Yunus Parvej Faniband, Iskandar Ishak, Fatimah Sidi, Marzanah A. Jabar

International Journal of Advanced Computer Science and Applications 9.12 (2018)The Science and Information Organization, 2018

CONFERENCE PROCEEDINGS

[1] An Efficient Distributed Framework for Secured Multimedia Content Using Cloud Storage
Yunus Parvej Faniband, Iskandar Ishak, Fatimah Sidi, Marzanah A Jabar, Deloria Shaniska Razin CH Yap
2023 2nd International Conference on Computer Technologies (ICCTech), 2023

[2] Forecasting Wind Speed using Artificial Neural Networks–A Case Study of a Potential Location of Saudi Arabia
Faniband, Yunus Parvej, SM Shaahid
E3S Web of Conferences, 2020

[3] An Approach to Secure ePUB Ebook Content
Faniband, Yunus Parvej, Iskandar Ishak, Aslam Nandyal, Fatimah Sidi, Marzanah A Jabar
International Symposium on ICT Management and Administration, 2019

[4] Enhancing Mobile Backend as a service framework to support synchronization of large object
Faniband, Yunus Parvej, Iskandar Ishak, Fatimah Sidi, Marzanah A Jabar
Proceedings of the 2017 International Conference on Information Technology, 2017

Presentation & Conferecences

ICACER 2020 (2020 5th International Conference on Advances on Clean Energy Research)
Barcelona, Spian

PRESENTER FOR THE TOPIC "FORECASTING WIND SPEED USING ARTIFICIAL NEURAL NETWORKS – A CASE STUDY OF A POTENTIAL LOCATION OF SAUDI ARABIA"
April 23-25, 2020

- First Author and Oral Presentor on the topic of predicting Wind Speed using Artificial Neural Networks using a case study Qaisumah – a potential wind resource region of Saudi Arabia.

ISICTMA2019 (International Symposium on ICT Management and Administration, 2019)
IOI Resort City, Sepang Utara, Malaysia

PRESENTER FOR THE TOPIC "AN APPROACH TO SECURE EPUB EBOOK CONTENT"
31st July - 2nd Aug, 2019

- First Author and Oral Presentor on the topic "An Approach to Secure ePUB Ebook Content"

ICIT 2017 (2017 International Conference on Information Technology)
Singapore

PRESENTER FOR THE TOPIC "ENHANCING MOBILE BACKEND AS A SERVICE FRAMEWORK TO SUPPORT SYNCHRONIZATION OF LARGE OBJECTS"
December 27-29, 2017

- First Author and Oral Presentor on the topic "Enhancing Mobile Backend as a service framework to support synchronization of large objects"