Bharath Prakash

Nationality: Indian **Date of birth:** 22/10/2001 **Phone number:** (+91) 7483991895

Email address: prakashbharath28@gmail.com

LinkedIn: www.linkedin.com/in/bharath-prakash-450596263

GitHub: https://github.com/Bharath2228

Website: https://bharath28-portfolio.netlify.app/

Home: Bengaluru (India)

WORK EXPERIENCE

Software Engineer - Developer

Boeing India Private Limited [16/08/2023 – Current]

City: Bengaluru | **Country:** India | **Organization:** Software Utilities for Embedded

Currently working as a **Software Engineer** for the **International Space Station (ISS)** Program at Boeing.

1. Designed and developed Python scripts to automate and evaluate large-scale database migration from MSSQL to MySQL.
2. Developed a Python module to overcome MySQL's 64-character table name limitation, ensuring seamless MSSQL table migration.
3. Migrated a Python application and T-SQL scripts from MSSQL to MySQL, ensuring optimal performance and compatibility.
4. Enhanced and maintained a VB6 and Python-based structural analysis tool for critical International Space Station components.
5. Configured and managed MySQL servers on VMware Tanzu for optimized performance, reliability, and multi-instance support.
6. Integrating multiple Python-based tools and SQL scripts into a single unified application to enhance workflow efficiency. (Ongoing)
7. Designing the user interface (UI) with Figma and developing it using PyQt5. (Ongoing)
8. Completed basic training on ReactJS, JavaScript, Redux, MapBox, and AWS basics.

Technical Skills: Python, SQL, MySQL, PyQt5, Draw.io, Figma, VMware Tanzu, ReactJS, JavaScript, Redux, MapBox, VBA Macros

Intern

Bosch Limited [09/02/2023 – 17/03/2023]

City: Ramanagara | **Country:** India

Worked on testing, calibrating, and analyzing CBX fuel pumps and fuel injection systems to evaluate performance trends.

EDUCATION AND TRAINING

Bachelor of Engineering (B.E)

M S Ramaiah Institute of Technology [2019 – 2023]

City: Bengaluru | **Country:** India | **Field(s) of study:** Electronics and Instrumentation Engineering

CGPA: 7.85/10 (German GPA – 2.0/5.0)

Pre-University College

Vidhya Mandir Independent Pre-University College [2017 – 2019]

City: Bengaluru | **Country:** India | **Field(s) of study:** Physics, Chemistry, Mathematics and Computer Science.

Secondary Education

ST Mary's High School [2017]

City: Bengaluru | **Country:** India | **Field(s) of study:** SSLC

DIGITAL SKILLS

Python / SQL / Microsoft SQL Server / MySQL / Transact-SQL / C / C++ / OOPS / HTML / CSS / TailwindCSS / JavaScript / ReactJS / Signal Processing / Digital Signal Processing / Embedded C / Keil uVision / NI LabVIEW / Cadence Virtuoso / NI Multisim / MATLAB/Simulink / Visual Basic for Applications / Raspberry Pi / Arduino / ESP32 / VERILOG (VHDL) / VLSI / Scilab

PROJECTS

[07/2024 – 08/2024]

E - CoderShelf - *Personal*

Built an e-commerce platform using ReactJS, Redux, Advanced CSS, TailwindCSS, and JSON Server, enabling users to browse and order books with a user-friendly interface for efficient book management.

[05/2024 – 06/2024]

FilmVault - *Personal*

Developed a movie details platform similar to IMDb using ReactJS, API integration, custom hooks, and advanced CSS with TailwindCSS. Implemented React Router for seamless navigation, enabling users to explore and view comprehensive movie information efficiently.

[01/2023 – 04/2023]

The Data Transmission Technique Using Low-Cost Li-Fi - *M S Ramaiah Institute of Technology*

Developed a Li-Fi based communication system using an ESP32 microcontroller to transmit text, audio, and images. Integrated MATLAB-based signal processing algorithms to minimize noise and enhance data reliability, demonstrating the potential of Li-Fi for low-cost, high-speed wireless communication.

[04/2022 – 07/2022]

Automation of Phototherapy for Neonatal Jaundice Patients - *M S Ramaiah Institute of Technology*

Designed an automated phototherapy device using ESP32 to treat neonatal jaundice. The system detects bilirubin levels from images, adjusts light therapy as needed, and sends real-time cloud notifications to caregivers for better monitoring and timely treatment.

[01/2022 – 02/2022]

Student Information System (SIS) - *M S Ramaiah Institute of Technology*

Developed a secure Student Information System in C# for managing student registration, login, course enrollment, and hall ticket generation in a single streamlined platform.

CERTIFICATIONS

[09/2024] **AWS Security Essentials** - *AWS Training and Certification*
[06/2024] **Developing Front End Apps with React** - *edx (IBM)*
[06/2024] **Technical Support Fundamentals** - *Coursera (Google)*
[06/2024] **Effective ChatGPT Prompts** - *O'Reilly (Boeing)*
[03/2024] **Data Science Orientation** - *IBM*
[12/2023] **Normalization and Indexes – SQL Server** - *O'Reilly (Boeing)*
[11/2023] **Python Programming** - *O'Reilly (Boeing)*
[11/2023] **SQL with Microsoft SQL Server** - *O'Reilly (Boeing)*
[11/2023] **VB for Microsoft Excel** - *OREILLY(Boeing)*
[12/2022] **Cyber-Physical Systems** - *Ramaiah Institute of Technology (Seminar)*
[11/2022] **Data Structures & Algorithms Essentials using C++ (2022)** – *Udemy*
[11/2022] **VLSI Design Gates to ICs** - *Ramaiah Institute of Technology (Workshop)*
[03/2022] **Programming for Everybody (Getting Started with Python)** - *Coursera (University of Michigan)*
[11/2021] **Industrial Automation Based Professional Training Program** - *LabVIEW Academy (NI Instruments)*
[07/2020] **Mathematical Perspectives on Computational Science and Engineering** - *Ramaiah Institute of Technology*

CONFERENCES AND SEMINARS

[05/2023] P.S.V College of Engineering and Technology, Tamil Nadu, India.

A National Level Technical Symposium - TEKWARZZ - 2023

Presented my Bachelor's Thesis at TEKWARZZ 2023, a National Level Technical Symposium, where it was recognized for its innovative use of visible light technology and practical engineering applications.

[12/2022] Ramaiah Institute of Technology

Digital Twin for Oil Pipeline Risk Estimation using Prognostic and Machine Learning Techniques

Delivered a seminar on Digital Twin for Oil Pipeline Risk Estimation using machine learning, IoT, and AI. Highlighted its role in risk prediction, real-time monitoring, and remote substation control.

LANGUAGE SKILLS

Kannada: Mother tongue
English: Business Fluent
Other language(s): German – A1