A.K. AMAN

✉ malik16aman@gmail.com
📱 + 91 –9902485746, 9742306276

An enthusiastic and high energy-driven professional having experience of over 7.5 years in **Embedded Firmware Engineering;** targeting competitive roles with an organization **Embedded Firmware engineering**

Profile Summary

in **a-k-aman-**

- **A focused professional; completed PG-Diploma in System Software Development from CDAC**
- **Received recognition from HP Inc. (Client)** for successfully resolving and eliminating build dependencies in the Safari Project
- **Experienced in designing embedded software for various electronic products,** ranging from simple microcontroller-based solutions to complex embedded processing systems
- **Established robust software verification testing tools,** methods, and frameworks, and conducted thorough software testing activities
- **Maintained comprehensive documentation of ideas, designs, specifications, and instructions, adhering to company standards**
- Provided valuable software engineering insights for development of project quoting activities
- **Contributed to the continuous improvement of department processes and tools,** with a particular emphasis on enhancing software development practices
- Extensive experience **in firmware development for microcontrollers and various communication protocols and system programming in Linux and Windows**
- Knowledgeable **in Microcontroller architectures: 8-bit, 16-bit, and 32-bit**
- Familiar with communication **protocols such as I2C, USART, UART, SPI, and Bluetooth**
- Skilled in firmware development **for printers, microcontrollers, protocols, sockets, IPP, basic device drivers, and Linux/Windows internal and kernel development**

Core Competencies

Embedded Software Development
Project Management
Capability Maturity Model Integration (CMMI)
Development Roadmaps
Requirements Gathering & Analysis
Troubleshooting
Cross-functional Coordination
Output (I/O)

Technical Skills

- **Programming Languages:** C, Embedded C, C++, Python Basics, Data Structure.
- **Skills Set :** Board Support Package(BSP),Boot Loader, Embedded Linux
- **Operating Systems:** Windows, Linux, MAC
- **Real-Time Operating Systems (RTOS):** VxWorks, ThreadX, pSos, MQX
  Protocols: SPI, I2C, UART/USART, IPP, USB, Bluetooth, Google Cloud Print, LEDM, Low Level Peripheral Driver.
- **Boards:** ARM926EJ-S, SAMSUNG A1000, A1500, A2000, AVR 128, LPC1768, STM32
  Tools & IDE's: GITHUB, JIRA, SVN, PVCS, Clear Case, Wireshark, USB Analyzer, Visual Studio, STM32Cube IDE,ARM Keil.

Academic Details

2016: PG Diploma in System Software Development from Centre for Development of Advanced Computing (CDAC), Hyderabad
2012: B.Tech. in Electronics and Communications Engineering: 71.50 %, Yagyavalkya Institute of Technology, Jaipur (RTU)

Work Experience

July'22-Present to June'23: Product Design Engineer, Western Digital (SanDisk), Bangalore
Project: BiCS5, BiCS6 and BiSC8 Memory Nodes for USB, MicroSD, SSD and SD Cards.
Client: WD, SanDisk, Apple and Google
Period: July 2022 – June 2023
Key Result Areas:
- Developed firmware for uSD, SDXpress, SD Card, and cSSD devices
- Primarily focused on firmware development for cSSD devices utilized in cloud storage
- Environment: **RTOS (MQX from NXP), Language (C/C++), and Tools (VS 2015)**
- **Project Repository: Perforce, SVN**

Sep'21-June'22: Senior Firmware Engineer, HP Inc., Bangalore
Project: AirPrint Feature Development for Windows and MAC OS
Client: Xerox, Samsung, CCT (HP and Mphasis Ltd.)
Period: Dec. 2017 to June 2021
Key Result Areas:
- Developed firmware for the AirPrint (Print, Scan, and FAX) 1.8 feature for MAC, iOS, Android, MOPRIA, and Windows over USB and Network. BSP development on Samsung A1500 Board (Cortex-M3 Based).
- Implemented firmware for the Low-End Device Model (LEDM) feature for Windows, MAC, iOS, and Android
- Created firmware for the Google Cloud Printing feature for printers from HP, Xerox, and Samsung
- Provided Original Equipment Manufacturer (OEM) services for Samsung, Xerox, and China Communication Technology
- Developed firmware for the Easy Print Manager App for Windows Driver. Using GV, GVR and GV3 Printer Architecture.
- Environment: **RTOS (ThreadX/VxWorks), Language (C/C++), and Tools (VS 2015)**
- **Project Repository: GitHub/Perforce/SVN**

Dec'17-Sep'21: Senior Software Engineer, HP Inc. (Parent: Mphasis Ltd.), Bangalore
Project: AirPrint Feature Development for Windows and MAC OS
Client: Xerox, Samsung, CCT (HP and Mphasis Ltd.)
Period: Dec. 2017 to June 2021
Key Result Areas:
- Developed firmware for the AirPrint (Print, Scan, and FAX) 1.8 feature for MAC, iOS, Android, MOPRIA, and Windows over USB and Network. BSP development on Samsung A1500 Board (Cortex-M3 Based).
- Implemented firmware for the Low-End Device Model (LEDM) feature for Windows, MAC, iOS, and Android
- Created firmware for the Google Cloud Printing feature for printers from HP, Xerox, and Samsung
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- Developed firmware for the Easy Print Manager App for Windows Driver. Using GV, GVR and GV3 Printer Architecture.
- Environment: **RTOS (ThreadX/VxWorks), Language (C/C++), and Tools (VS 2015)**
- **Project Repository: GitHub/Perforce/SVN**

Sep'16-Jun'17: Software Engineer, Honeywell Aerospace (Parent: Trigent Software Ltd.), Hyderabad
Project: Software Development for Display and Graphics in Commercial and Fighter Aircraft
Client: Antonov/Honeywell
Period: Sept. 2016 to June 2017
Key Result Areas:
- Worked on F5X, PC-24, and AN132 Defense Aircraft for Electrical Data and Aircraft Door Synoptic Display Systems (EDS)
- Designed display and graphics for AN132 Aircraft for Electrical Data System & Doors Management System
- Designed display and graphics for Environment Control Block for Dassault F5X
- Environment: **RTOS (Digital Engine OS), Language (C/C++), and Tools (VS 2015)**
- **Project Repository: SVN**

March'16-Sep'16: Software Engineer ,Magnaquest Technologies Hyderabad
Project: EIDA (Emirates Arab Identification Authority), U.A.E Government
Client: UAE Govt./MagnaQuest
Period: March 2016 to Sept. 2016
Key Result Areas:
- Implemented Cryptography application of smart card and NFC card
- Performed System programming for Windows and Linux
- Worked on SSL and Libwebsocket Library for Windows and Linux
- Environment: PKCS#11 Library, Visual Studio 10, XCODE 9,C++
- **Project Repository: Perforce**

Personal Details

Date of Birth:	16th October 1992
Languages Known:	English, Hindi, and Kannada.
Address:	Bengaluru 560076