

Curriculum Vitae of **AADISHRI G S**

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OBJECTIVE: To excel and attain *job satisfaction* in my areas of interest by means of *innovation* and *professionalism* and emerge as an asset to my organization

EDUCATION: B.E in Electronics and Communication in **UVCE - 2002-06**
(University Visvesvaraya College of Engineering, Bangalore)
Grade: Distinction (71.3%)

EXPERIENCE SUMMARY

- ✧ Total Experience : **11 years 10 months** (Sept 2006 – Present)
 - ✧ **Savari** (V2X Automotive and GPS) : Nov 2016 - Present
 - ✧ **Aricent** (Post Acquisition of SmartPlay) : March 2016 – Nov 2016
 - ✧ **SmartPlay** (Embedded & Wireless Division) : July 2011 – Feb 2016
 - ✧ **MindTree – R&D** (Campus Batch - 2006) : Sept 2006 – May 2011
- ✧ Savari V2X Stack and GNSS on *Savari, Autotalks, Aptiv[Delphi]* HW
- ✧ Projects of *Intel, TI* executed in **GNSS**(Firmware)/AGNSS (AP and CP Environment)
- ✧ Lead an in-house **NFC** R&D project

DOMAIN / AREAS OF EXPERTISE

- ✧ V2X – WAVE and ETSI stacks
- ✧ GNSS(Firmware, Android Host software and Native layer Programming)
- ✧ A-GNSS – SUPL and C-Plane, PGPS, SAGPS
- ✧ NFC Technology and Bluetooth

CAREER INTERESTS:

1. Connectivity Domain : GPS, Bluetooth, WiFi Protocols and Modem Engineering
2. Embedded Domain – Firmware and Microcontroller Engineering, IoT
3. V2X / Automotive Domain

TECHNICAL SKILLS:

- ✧ Programming in C Language
- ✧ IPC - Sockets, RPC, Shared memory, Message Queues, Threads and Synchronization
- ✧ Debugging IDE/JTAG: Code-Composer Studio 4(CCS 4) , Lauterbach Trace32
- ✧ GNSS Tools: ULTS, TTCN, R&S, u-center, NMEA and UBX Encoding-Decoding
- ✧ Open source: OpenWRT, Yocto, GPSD, Chrony, KPPS, ASN.1 Codec

SECONDARY SKILLS

- ✧ Technologies: Bluetooth , ASN.1, IEC61850
- ✧ C++, Sqlite3, LibXml2, TeL
- ✧ Code analysis tools like Klocwork, Blackduck, Bullseye

ACADEMIC TRACK RECORD:

	SSLC (X Std)	II PUC (XII Std)	B.E (E&C)
Percentage (%)	94.24	91.16	71.38
Class	<i>Distinction</i>		
Year of passing	2000	2002	2006
School/College	SVMES, Bangalore	MES College, Bangalore	UVCE , BU, Bangalore

PROJECT DETAILS:

3. PROJECTS AT SAVARI – Automotive / V2X | GNSS

PROJECT 3.3 - Savari Stack on Flex Board [GPS: UBlox M8L / M8U]

Project: V2X Development on Savari MW1000 and SW1000 with OpenWRT

Details: Leading GPS activities

- **Configuration** and update FW of **UBlox** M8L/M8U to obtain optimum position
- PPS implementation using **KPPS** driver and **Chrony** config to achieve nsec accuracy
- **GPSD** patched to enable UBlox HNR-PVT / NAV-PVT and enhance JSON client lib
- Development of Interface between Savari stack and OEM BSP for GNSS and CAN
- Design and development of **GPS Extrapolation** to fix data latency and 10Hz update rate
- Extensive knowledge of : **WAVE**(BSM, TIM, SPaT,MAP, 1609.3)
: **ETSI**(CAM, DENM, BTP, Geo-networking)
- Compliance to **J2945**(Eg: Path history, Path prediction, Acceleration, Yawrate) and J2735
- **RSU 4.1** Spec - GPS and timing related SNMP requirements implemented

Team size: 2

Duration : November 2016 – Present

PROJECT 3.2 - Savari Stack on Autotalks CRATON2 EVK [GPS: Telit SL869-V3]

Project: V2X Development on Autotalks CRATON2 EVK with Yocto

Details: The project involved

- Configuration and update FW of Telit GPS chip using \$PSTM commands
- Implement Savari Stack GPS Interface with AT BSP

Team size: 2

Duration : June 2017 – March 2018

PROJECT 3.1 - Savari Stack on Aptiv(Delphi) board [GPS: UBX-M8030-KA]

Project: V2X Development on Aptiv(Delphi) board with QNX

Details: The project involved

- Savari Stack modification to achieve **J2945 compliance for UMTRI - SWRI**:
 - . Positional accuracy (DATAACC-012) vs max age of position < 150ms (DATAACC-010)
 - . Longitudinal acceleration (DATAACC-025)and Yawrate (DATAACC-027)

Team size: 5

Duration : Nov 2017 – July 2018

2. PROJECTS AT SMARTPLAY (Aricent) - GNSS | Embedded | NFC

PROJECT 2.4 - Aricent - Intel Modem-for-Automotive Project

Project: Modem Support to Automotives with **AGNSS - SUPL and C-Plane**

Details: Providing additional AGNSS features to IMC's GNSS solution on Modem Processor for Automotives on Yocto and preparation of verification plan for GNSS module

Team size: 50+

Duration : April 2016 – October 2016

PROJECT 2.3 - Intel Mobile Communication AGNSS [GPS: Intel 7xxx Modem based]

Project: AGNSS Feature Enhancements - **SUPL and C-Plane**

Details: Providing **AGNSS** features to IMC's GNSS on Modem (CP) and AP platforms

- ⌘ Implementation and support for GNSS in MDT and SON, TD-SCDMA, SIB

- ⌘ Bug analyses from Modem/GNSS logs – Auto, MSA, MSB, MOLR, MTLR

Team size: 5+

Duration: November 2013 – February 2016

PROJECT 2.2 - NFC Controller Simulator R&D Project

Project: NFC Forum Specification based NFC Controller Simulator Development

Details: The project involved SDLC of building a *Simulated / Virtual NFC Controller*

- ⌘ NFC Spec - NCI based RF State, Digital Protocol commands and Activities flowchart

- ⌘ Simulated polling for NFC Tag Implementation (NFC-A, ISO-DEP, Tag 1 etc)

- ⌘ Study and editing the NFC Forum specs: NCI, Digital, Activities, Analog, NDEF

Team size: 6

Duration: February – October 2013

PROJECT 2.1 - TI GNSS Connectivity Project

Project: **GNSS / AGNSS – Firmware and Host software**

Details: Firmware of TI GNSS (Navilink/Wilink) and Android(Zoom/Beagleboard)

- ⌘ Modularizing Firmware code by splitting the headers and the Pointer Jumptable

- ⌘ Assisting the GNSS-RF firmware team to compensate chip abnormalities

- ⌘ GNSS Firmware concepts like correlation, position calculation, timing, clock, RF modules, ARM co-processor, memory map, Almanac, Ephemeris etc

Tools: C, ULTS, Code Composer Studio, ETM Trace32 – JTAG debugger, Clearcase

Team size: 10

Duration : Aug 2011 – December 2012

1. PROJECTS AT MINDTREE - GNSS | Embedded | Bluetooth

PROJECT 1.5 – RRC/RRLP Simulation tool Project [GPS: TI NaviLink and WiLink]

Project: **RRC/RRLP tool** to generate XML and simulate RIL

Details: The project involves using ASN.1 to XML conversion of RRLP

- ⌘ Encoding / decoding GPS messages like Almanac, Ephemeris etc

- ⌘ Socket/thread interfaces and callback functionalities for RIL/modem emulation

Platform/Tools: C, ASN.1 open source library

Team size: 10

Duration : Aug 2010 – May 2011

PROJECT 1.4 – QUALCOMM Bluetooth

Project: Certification of Qualcomm **Bluetooth** Products

Details: The project involves functional certification of Qualcomm BT phones with SIG

⌘ Study of BT profiles like OPP, FTP, A2DP, HF/HS etc.

⌘ Understanding BT protocol layers like L2CAP, HCI, RFCOMM, OBEX

Team size: 8

Duration : Apr – July 2010

PROJECT 1.3 – Atmel STK R&D

Project: Usage of **Atmel STK500** Starter Kit (AVR Studio 4)

Details: Usage of STK500 and **Atmega88** to create firmware/driver for devices

⌘ Usage of *Timers*, *PWMs* in Atmega88 , Polling and Interrupt Mode usage

Duration : Feb – Mar 2010

PROJECT 1.2 – IEC61850 Electrical Substation Protocol R&D

Project: IEC61850 Conformance Tool Development for Product Certification

Details: Design and development of **IEC61850 Protocol** Certification Tool.

Platform/Tools: C / Tcl , Sqlite3 and XML packages, ASN.1 Open Source

Team size: 5

Duration : 15 months

PROJECT 1.1 – UTC – CARRIER AC

Project: Embedded Controller Application for Carrier AC Truck Trailer

⌘ Maintenance / enhancement of an embedded controller application for Carrier AC

Team size: 2

Duration: 19 - 20 months

ACADEMIC PROJECT 1 - BHEL

Project: Digital Input module for Serial Interface with CPU (using MC Atmel-8051)

Details: Conversion of parallel data into serial data by processing on 8051

ACADEMIC PROJECT 2 - BEL

Project: Config of 128*160*RGB Color Graphics LCD using - Moto MC68332 PCB I/F

Details: A microcontroller board was used to configure the LCD unit using Tornado IDE

PERSONAL DETAILS:

Residence : Bangalore, India

Employment Status : Full-term employee serving Notice Period

Hobbies And Interests : Carnatic Classical Music (Junior), Painting, Creative writing