Prasath Palaniappan
Email: ijprasath@gmail.com Mobile: (+91) 9600121925

PROFESSIONAL SUMMARY

- Strong technical skills with 6.5 years of experience in software development
- 2 years of experience in Image Processing and Video Analysis
- 1 year of experience in Avionics (Satellite Development)
- 1 year of experience in Aerospace Embedded System (IFE)
- 3 years of experience in Printer domain
- Core Competency in OO Analysis, Design and development.

ACHIEVEMENTS

- Received the patent rights for the work product, "System and Method for Classification of Moving Object during Video Surveillance" delivered at Anna University. The Patent has been granted by the Japanese Patent office (JPO) on 27th July 2012 and also published in European/ US/CN countries

  JPO Patent – Patent No: 5047382 & App No: 2011-136524
  European Patent – EP2413265
  US Patent – US20120026328
  CN Patent – CN102346855

- "Certificate of Appreciation" has been awarded by Vice Chancellor of Anna University for making the successful launch of Anna University Satellite (ANUSAT)
- "Certificate of Appreciation" has been received from the Director of ISRO Tracking Centre (Lucknow) for successfully commanding ANUSAT to sustain its orbital stability in post launch
- Member of HCL O (Outstanding) Infinity Club
- Recipient of "LIVE WIRE" award in the years 2011 (OND), 2012 (AMJ) & 2014 (JFM)

TECHNICAL SKILLS

Languages	:	C, C++
Scripting/Design Languages	:	Bash Shell Script, UML
Operating Systems	:	Linux, Windows
Testing Frameworks	:	gTest, Cxxtest
Debugging/Development Tools	:	gdb Debugger, Vim, Eclipse
Hardware Emulator	:	Qemu Emulator
Configuration Tools	:	Accurev, GIT, VSS, SVN
Defect Tracking Tools	:	ClearQuest
Software Libs/Tools	:	OpenCV, Microsoft Visio

EMPLOYMENT HISTORY

HCL Technologies Ltd	Technical Lead [Earlier: Lead Engineer, MTS]
Anna University Research and Development	Project Associate

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PROFESSIONAL EXPERIENCE

In HCL Technologies Ltd

XEROX (MULTI FUNCTIONAL PRINTER) MAR '12 – TILL DATE

Description:
MFPs (Multi Functional Printers) provide a wide range of features like Scan, Print, Fax, and Email. For a new product launch (Brilliance and Luminance), development was done for Network controller (NC), Common controller (CC) and Image Output Terminal (IOT) module.

IOTC DEVICE DRIVERS:

In IOT controller, to achieve large data collection pull and push for remote services support and reduce UMC. Implemented the below device drivers for Xilinx ZYNQ controller in IOT application and Qemu emulator. The controller was redesigned to replace the existing STM32F4 microcontroller with Xilinx Zynq.

Device drivers:

- General Purpose Input/output (GPIO)
- SPI Bus Controller
- UART Controller
- Stepper Controller
- USB Device Controller

Role: Developer and Technical Lead

Languages / Tools: C++ (Linux), Qemu Emulator

Team Size: 3

Responsibilities:

- Software Requirements gathering
- Device driver implementation in application and Qemu Emulator

NETWORK CONTROLLER:

The NC is the one of the major platform that comprises the Endeavor multifunction device controller. This includes the Print Path, Scan Path, Web-UI, DLM Upgrade, and SNMP services and it is the core module that manages the spooling and ripping the image from the data/file received from the print driver and sends it to print engine via CCS-IOT.

Role: Developer and Technical Lead

Languages / Tools: C++ (Linux), CxxTest

Team Size: 20

Responsibilities:

- Leading the 5 member team throughout the product development
- Software Requirements gathering
- Code implementation and Defect fixing
- Code review
- Unit testing and System testing

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RSA CERTIFICATE MANAGER — OCT '11 – FEB '12

Certificate Manager is a full-featured certificate authority (CA) software application capable of providing an enterprise-wide or global public key interface (PKI). It includes a secure Web Server for web-based administration and enrollment and a secure Lightweight Directory Access Protocol (LDAP) directory, alternatively known as the Secure Directory Server. The Certificate Manager architecture supports secure web-based administration through client-authenticated and server-authenticated Secure Socket Layer (SSL) sessions. The administration interface is written using HTML enhanced by the Certificate Manager X-Parse Markup Language. X-Parse provides scripting-level access to PKI functionality in the Certificate Manager API.

Role: Developer and Lead Engineer

Languages / Tools: C++ (Linux), CxxTest

Team Size: 6

Responsibilities:

- Migration of work products and modules that were supported by Apache 1.3 in RSACM to Apache 2.0.64
- Addition of new modules in Apache 2.0.64 to support xuda files, hardware key and authorization
- Creation of make files and shell scripts
- Unit testing of the modules and debugging in Linux (GDB) environment

IMS RAVE — OCT '10 – SEP '11

The IMS provides In Flight Entertainment (IFE) and communications solutions for the air and ground transportation industries - serving planes, trains and automobiles as the market leader in portable entertainment, wireless communications and content management services. IMS Reliable Audio and Video Entertainment (RAVE) is designed with simple system architecture for ease of installation and the highest reliability of any in-seat design. Solid state SD cards provide full media at every seat. All the content storage applications are located at the seat and hence the head end is used only for content loading, thereby improving the performance by avoiding the head end servers. RAVE is designed with a built-in wireless modem for on/off aircraft data transfers of revenue transactions, content loading and system reports.

Role: Developer

Languages / Tools: C++ (Linux), gTest

Team Size: 30

Responsibilities:

- Design, Development, Testing, Debugging and Documenting complex software component using proprietary tools, technologies and frameworks
- Design and gathering the software requirements for Local Audio/Video Playback Control, User Playlist, Aircraft ID Entry, Parental Lock and Content Meta Data features.
- Developing software code for Local Audio/Video Playback Control, User Playlist, Aircraft ID Entry, Parental Lock and Content Meta Data features
- Unit testing and Integration Testing for Local Audio/Video Playback Control, User Playlist, Aircraft ID Entry, Parental Lock and Content Meta Data features

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In Anna University, Research and Development

CLASSIFICATION METHOD OF MOVING OBJECTS IN VIDEO SURVEILLANCE SEP' 09 – SEP' 10

The project is meant for classifying the moving object that is being tracked in surveillance (MPEG-2 Video Stream). Any new object (side view of the object) that appears in the field of view is detected and classification is done by assuming that the object belongs to one of the three classes: Human, Vehicle or Cattle. When the object detected is classified as Human, then an algorithm is written to detect whether the human carries a backpack or not based on Content Based Image Retrieval Project.

Role: Developer

Languages / Tools: C++ (Linux), OpenCV

Team Size: 4

Responsibilities:

- Software requirements gathering
- Code Implementation of the entire system
- Documentation of user manual for the users
- Handling various real time problems and enhancement of the existing System
- Unit testing and Integration

ANUSAT NOV '08 – AUG '09

http://www.annauniv.edu/anusat/

ANUSAT (Anna University Satellite) is the first Indian University Satellite, designed and developed by Anna University (CENTRE FOR AEROSPACE RESEARCH) with support from ISRO (Indian Space Research Organization). ANUSAT has been launched by ISRO on 20th April 2009 with PSLV C-12 Launch vehicle from SHAR (Sriharikota).

Role: Developer

Languages / Tools: C, C++ (Windows)

Team Size: 15

Responsibilities:

- Developing Telecommand and Telemetry Software modules for the Ground station
- Developing the complete system of the telecommand Transmitter in C and demultiplexing of telemetry data in C++ (Windows)
- Conducting pre-launch testing of Telecommand and Telemetry ground systems with Onboard – satellite, fixing the bugs and enhancement of the System at ISRO Bangalore
- Participating in post launch team and involvement in the Telecommand operation and Telemetry reception, initially carried out at ISTRAC, Bangalore
- Creating and maintaining a redundant ground station for a couple of weeks at ISTRAC, Lucknow to improve the health condition of the satellite during emergency period

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CONTENT BASED IMAGE RETRIEVAL — JULY '08 – OCT '08

The project is meant for analyzing the people, carrying objects. Activities involving people and object are the basic interest for developing this algorithm. The algorithm mainly captures the asymmetry in the silhouette, when the person carries a backpack. The features under consideration are asymmetry in terms of area, concavity, number of edges, color and textural components. The feature vector based on these parameters would be fed to a classifier. Based on these features, the classifier will classify whether this object is carrying a backpack or not.

Role: Developer

Languages / Tools: C, C++ (Linux)

Team Size: 4

Responsibilities:

- Software requirements gathering
- Code Implementation of the entire system
- Unit testing and Integration

EDUCATIONAL QUALIFICATION

- B.Tech in Information Technology from Sona College of Technology affiliated to Anna University with 66% aggregate.
- HSC from Govt. Higher Secondary School with 76% aggregate.
- SSLC from Govt. Higher Secondary School with 85% aggregate.

PERSONAL DETAILS

Name	:	P. Prasath
Father's Name	:	Mr. S. Palaniappan
Year of Completion (B. Tech)	:	April 2007
Date of Birth, Age	:	09-04-1985, 29
Marital Status	:	Single
Current Address	:	H4, Woodsville Apartment, 5th Main Road, Bell Nagar, Medavakkam, Chennai-100.