Kalpak Seal

Systems Engineer at Infosys Limited, Bangalore

Summary

"Strive not to be a success, but rather to be of value." - with this vision I am currently working with Infosys Limited in their Engineering Networking and Embedded Systems department as a Systems Engineer since December 2015.

An agile software developer, currently working in Core Infrastructure for a telecommunications access equipment for service providers named Calix Inc., I am part of the team responsible for developing the Broadband Network Gateway of their AXOS E9-2 Intelligent Edge System under the NG-PON2 platform. Prior to this, I was involved with another US multinational company, Avaya, also as a software developer where my team was entrusted with making their VSP - 4,7,9 series product Common Criteria(CC) Compliant.

I am currently looking for opportunities that focuses on software development. I have a keen interest in solving problems affecting the present world and would like to be a valuable contributor in the process. My strengths lies in taking pragmatic decisions and fulfilling business objectives, thereby benefiting the organization.

Apart from the above, I play the violin and read various blogs on sports and technology.

Technology Domain and Keywords
+ C, C++, Python, JAVA, Scripting languages, Object Oriented Programming
+ Algorithms, Data Structures
+ GIT, Code review tools, Unit testing, Test Automation
+ Agile and Waterfall Development Methodologies

Experience

Systems Engineer - Core Infrastructure at   Infosys Limited
September 2016 - Present (7 months)

  Part of Broadband Network Gateway development team of AXOS E9-2 Intelligent Edge System under the NG-PON2 platform for Calix Inc.
  • Worked mainly in DIAMETER protocol with Gx interface looking after the Authorization & Authentication of subscribers when they are trying to connect to BNG.

  • Developed various commands using YANG for CLI.

Systems Engineer at   Infosys Limited

December 2015 - September 2016 (10 months)

- Part of the Dev team working for Avaya Inc. entrusted to make their Virtual Service Platform(VSP) series products Common Criteria (CC) certified.
- Designed and developed the Secure Syslog module that involved establishing Port Forwarding over an SSH tunnel and storing the logs messages securely.
- Post development performed various functional and regressional tests of various other modules before successfully deploying it to the client to their satisfaction.

Systems Engineer Trainee at   Infosys Limited

July 2015 - December 2015 (6 months)

Project:

1. Design and Implementation of an Online Payment Portal.
2. Building a Transaction Manager which monitors every operation between a client and the server.

Project Intern at   Variable Energy Cyclotron Centre

September 2014 - July 2015 (11 months)

- Selected to do a research project in the Computer Division under Scientific Officers of BARC based on performance during the Summer Internship.
- The project involved designing the circuit, building the PCB and developing the application for using the hardware in a library for inventory management.
- Mentored junior summer and winter trainees during their internship.

Summer Intern at   Variable Energy Cyclotron Centre

June 2014 - July 2014 (2 months)

- Did a project titled Ultrasonic Distance Measurement using an AT89C51 microcontroller for further application on a mobile robot to be built by the organization.
- Was amongst the 150 interns to be selected nationally based on academics and a screening interview.
- Successfully completed the project on time and was critically appreciated for the work.

Summer Trainee at   Airports Authority of India

June 2013 - July 2013 (2 months)

- Exposure to Security and Safety Equipments used at the Netaji Subhash Chandra Bose Internatinal Airport.
- Systems demonstrated includes X-ray Baggage inspection ,Public Address System, DMFDs , Fire Safety , CCTV surveillance.

Certifications

Introduction to Linux: LinuxFoundationX - LFS101x.2

edX   License a9bd94ff31a8403e8bf383b31228453a   May 2016

Learning How to Learn: Powerful mental tools to help you master tough subjects

Coursera Course Certificates   License CDTF7FNNX6BW   August 2016

Programming for Everybody (Getting Started with Python)

Coursera Course Certificates   License M7RKW4DVE4MU   May 2016

Python Data Structures

Coursera Course Certificates   License 2VZNMJEEVQHA   May 2016

Using Python to Access Web Data

Coursera Course Certificates   License MXF9WNS5QXVX   May 2016

Using Databases with Python

Coursera Course Certificates   License XFB3UGAAABVD   July 2016

Intro to Python for Data Science

DataCamp   License e4c6ecfdcc4cb861c235541385075cc804b4094d

The Data Scientist's Toolbox

Coursera Course Certificates   License PQYPKMJ4JBTP   May 2016

Introduction to R

DataCamp   License 7bfcd106dae7239e10cc92147ea5b456e52075fc   November 2016

Introduction to Big Data

Coursera Course Certificates   License PBWZ7HXR9KKR   May 2016

Object Oriented Programming in Java

Coursera Course Certificates   License PHCAXW44SCHN   June 2016

HTML, CSS and JavaScript

Coursera Course Certificates   License HDTLP7QDJ3GP   August 2016

Certificate of Completion: JavaScript Basics

SoloLearn   License 1024-389691   August 2016

Practical Musicianship in Violin - Grade 8

ABRSM

Music Theory - Grade 5

ABRSM

Projects

Design and Development of RFID Reader Module for Library Management.

September 2014 to July 2015

Members:Kalpak Seal

- The project involved designing the PCB using CIRCAD having TRF7970A and ATMEGA32 as the main IC. The protocol used was ISO15693 through which Anti-Collision algorithm was implemented enabling us to read up to 5 RFID tags simultaneously.
- The GUI for the total system was written in Visual Basic 6.
- Recently the project was tested successfully and a publication of the same awaits soon.

Design and Testing of an Ultrasonic sensor-based Distance Measuring module

June 2014 to July 2014

Members:Kalpak Seal, Sanchar Banerjee

Design and implement an Ultrasonic Distance Measurement module using an AT89C51 microcontroller.

- The design was done using only basic electronic components(resistors, transistors, and capacitors) and a Farnell transducer was used as a transceiver.
- The targeted measure of distance was 2.5 meters, of which a range of 2.2~2.4 meters was achieved with 98% accuracy.
- The output was displayed through USART Terminal via serial communication.

The designed module will have its usage in mobile robots to measure the distance of objects upfront and in various other case specific demands.

The project was well appreciated and happened to be one of the 6 out of 50 projects delivered within the given timeframe.

Monitoring the Human Eye and generating an alarm using clustering technique

May 2015 to Present

Members:Kalpak Seal

The project involves Monitoring the Human Eye and detecting whether it is open or close. If the eye is found to be closed for more than 30 seconds, we infer the person concerned is sleeping or is tending to.

The monitoring of the eye is done from a real-time video via mobile camera (rear, 8MP) and frames at an interval of 5 seconds are checked. If for this continuous duration, the system depicts a closed eye, an alarm is generated.

The target application of this project is mainly meant for drivers, who at times due to extensive driving, tends to fall asleep; thereby leading to fatal accidents to themselves as well to others.

Education

RCC Institute of Information Technology

Bachelor of Technology (B.Tech.), Electronics and Communications Engineering, 2011 - 2015

Grade: 8.75

Activities and Societies: Debate Society, Students Welfare Committee, Music, Robotics, Coding Club, Students' Linux User Group

St. Augustine's Day School , Kolkata

1997 - 2011

Activities and Societies: Music Club, Debate Team, Computer Club.

Courses

Bachelor of Technology (B.Tech.), Electronics and Communications Engineering

RCC Institute of Information Technology

Data Base Management System	EC705-C
Organisational Behaviour	HU801
Digital Image Processing	EC801-B
Material Sc. & Engg	EC802-B

Microprocessors & Microcontrollers	EC502
Control System	EC503
Data structure & C	EC504-B
Digital Communications	EC601
Digital Signal Processing	EC602
Telecommunication System	EC603
Information Theory & Coding	EC604-B
Object Oriented Programming	EC605-A
Wireless Communication & N/W	EC701
Microelectronics & VLSI Designs	EC702
Basic Principles of Computation and Programming	CS101
Circuit Theory & Networks	EC301
Numerical Methods	CS301
Solid State Devide	EC302
Signals and Systems	EC303
Analog Electronic Circuits	EC304
EM Theory & Transmission Lines	EC401
Digital Electronic & Intrgrated Circuits	EC402
Analog Communication	EC501
Optical Communication & N/W	EC703-B
Radar Engineering	EC704-A

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Systems Engineer Trainee
Infosys Limited
Programming Basics using Python
Database Fundamentals
Operating Systems and Software Development
principles
Programming in C++
Computer Networking with C++
Wireless Communication
Design Thinking
Bussiness Communication

Test Scores

Infosys Foundation Program
December 2015   Score:86.00 %

   Cleared Infosys' Foundation Program. Ranked 3rd in my batch of 90.

Honors and Awards

Infosys Star of the Month

Infosys Limited

April 2016

Performance Excellence Award.

Amul Vidyashree Award

Amul

August 2009

Acamedic Excellence award for securing 96.2% in ICSE and being in the top 20 nationally.

Skills & Expertise

C
C++
Java
Linux
Public Speaking
Matlab
SQL
Programming
JavaScript
Robotics
Engineering
Core Java
HTML
Python
Networking
Data Structures
Algorithms
Database Management System (DBMS)
Operating Systems
NETCONF

Organizations

Kolkata Music Academy

Violinist

February 2006 to Present

Principal 2nd violinist for KMA Chambers Orchestra. Performed in multiple concerts over various locations.

Languages

English   (Professional working proficiency)

Hindi   (Professional working proficiency)

Bengali   (Native or bilingual proficiency)

Interests

Classical music (esp. Beethoven, Haydn, Vivaldi, Mozart and Bach).

Debate.

Trends in technologies.

Playing Violin.

Digital Photography

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Contact Kalpak on LinkedIn