Prathamesh Prabhudesai

Student at North Carolina State University

prathprabhudesai@gmail.com

Experience

Senior Executive at   Vodafone India Services

March 2014 - May 2015 (1 year 3 months)

   DC Operations - Wintel Tower (Windows, VMware, Citrix) Includes windows server administration from
   the European data centers (Milan, Ratingen and Dublin). Technical training undergone: Unix,JAVA, JSP,
   DBMS, Windows Server Administration and ITIL. Core responsibilities: Monitoring Alerts Management,
   Hardware Issues, Planned Service Requests (Change Requests) handling, User Management - Leavers
   Task, Priority 2 Ticket Escalation Reports, Daily Dashboard and Monthly Ticket Breached Analysis.
   Contributions: - Modified Approach to the Leavers Task using Efficient Windows Batch Scripting - Priority
   1 and Priority 2 Tickets: Trend Analysis - Core team-member of Vodafone Local Greece Transition (File
   Services, Print Services, Seibel and Hardware Issues) Graduate Engineer Trainee Ambassador

Research Project Intern at   Central Water and Power Research Station, Government of India

August 2012 - April 2013 (9 months)

   The research work included velocity profiling, sedimentation classification and quantization in coastal
   hydraulic models, bed profiling using sensor mapping and dispersion analysis with the help of digital image
   (video) processing technologies.

Intern at   Legrand (India)

May 2011 - May 2011 (1 month)

   Worked on the Kanban system for inventory management on the MCB, RCCB shop floor.

Projects

Garment Classifier System

August 2013 to Present

Members:Prathamesh Prabhudesai

   The project dealt with the design of image classifier system: training and testing in Python. The classifier is
   provided with the five classes, shirts, trousers, skirts, dresses and none. The classifier designed, is a simple
   if—else based classifier which is trained adaptively. The classifier trains itself according to the vertical and
   horizontal profile densities of the image.

**Flow Pattern and Velocity Measurement in a Physical Hydraulic Model Using Image Acquiring and
Processing System**

August 2012 to March 2013

Members:Prathamesh Prabhudesai, Saif Sayed

The project dealt with the velocity measurement of the water flow and its flow pattern plots using image processing (software) techniques. The existing hardware technologies (V-ADCP sensors) are costly and fail to plot the flow patterns. The project was carried out on a Bombay Port Model for the Navi Mumbai International Airport, Panvel safety. The algorithm is influence by Particle Image Velocimetry (PIV).

Sediment Deposition Analysis: Categorization and Quantization

August 2012 to March 2013

Members:Prathamesh Prabhudesai, Saif Sayed

The research work was carried out on the sediment depositories in the coastal hydraulic with an aim of identifying the reservoir storage capacity, advanced planning for water management and strengthening silt removal process.

Bed Profiling and Dispersion Analysis

August 2012 to March 2013

Members:Prathamesh Prabhudesai, Saif Sayed

For the analysis of topographic nature of the water channel, bed profiling was done using sensor mapping and contour plotting. The dispersion coefficients were calculated for the analysis of behavior of foreign fluids in water.

Vehicular Database Management System for Accident Avoidance

October 2012 to November 2012

Members:Prathamesh Prabhudesai, Gaurav kULKARNI, Saif Sayed

The project dealt with the innovative methodology to avoid accidents occurred due to over-speeding. In this methodology, the vehicle speed is monitored from the local station and if it crosses the certain speed limit, the data is sent to the central control station. The control station monitors all the logs and is equipped with NI LabVIEW®. The appropriate decision taking authority, of stopping the car or license cancellation, is the control station in this case. The duplex communication between local stations and a central control station was carried out through the GSM communication.

Camera Aided Topography Measurement System

December 2011 to May 2012

Members:Prathamesh Prabhudesai, Saif Sayed, Prasad Temgire

The project was an implementation and modification of an "IEEE paper Distance and Angle Measurement of Objects on an Oblique Plane Based on Pixel Number Variation of CCD Images". It dealt with the topographic analysis of the surrounding. The detection of object and real time distance analysis of the object from the camera based on various trigonometric distance measurement methods was the prime concept behind this project.

Small Internetworks

September 2015 to Present

Members:Prathamesh Prabhudesai

Conducted simulations of star and extended-star network topologies for small office network using OPNET Riverbed Modeler. Discussed performance issues related to Ethernet delay, Ethernet load and network traffic.

Publications

Quantization and Classification of Sedimentation of a Coastal Hydraulic Model using Image Processing Technique

International Journal For Research And Review In Applicable Mathematics And Computer Science   August 2012

Authors: Prathamesh Prabhudesai, Selva Balan, Saif Sayed, Dr. S D Shelke

   The water level and flow of hydraulic models has been successfully implemented. However, the estimation of sediment deposits for calm shallow water is still a manual operation. We propose an accurate estimation and classification method based on set of images bearing known quantity of the sediment proportion in a white rectangular box and then classifies a new image shot in the same scenario with the help of matching pixel counts of the new and the database images. The algorithm is also successfully implemented to a hydraulic model.

Adaptive Color Gamma Correction For Sediment Classification And Quantization In A Reservoir

HYDRO-2012, National Conference on Hydraulics and Water Resources, Indian Society for Hydraulics   December 7, 2012

Authors: Prathamesh Prabhudesai, Selva Balan, Saif Sayed, Dr. S D Shelke

   Sediment classification and its quantization has always been a challenge to hydraulic engineers. This paper proposes a novel method based on "Adaptive Color Gamma Correction" which gives the classification of sediments deposited as well as suspended in water with the help of pseudo coloring and also suggests a calibration method to quantize them. The algorithm is successfully implemented in a hydraulic model.

Courses

Master's Degree, Computer Engineering
North Carolina State University

Digital Signal Processing	ECE513
Random Processes	ECE514
Computer Networks	ECE/CSC 570
Design and Analysis of Algorithms	CSC 505
Object-Oriented Design and Development	ECE/CSC 517
Pattern Recognition and Machine Learning	ECE 759
Computer Vision	ECE 763

Bachelor's Degree, Electrical, Electronics and Communications Engineering
Pune Institute of Computer Technology
Data Structures
Digital Communication
Signal Coding and Estimation Theory
Digital Image Processing
Speech Processing

VLSI Design and Technology
Computer Organization and Architecture
System Programming and Operating Systems

Languages
Sanskrit
English
Marathi
Hindi

Skills & Expertise
VHDL
C
Matlab
Digital Signal Processors
NI LabVIEW
Digital Image Processing
Shell Scripting
Unix
Windows Server
Active Directory
Java
Python
Windows Batch
Core Java
C++
Linux
SQL
HTML
MySQL
Data Structures

Education
North Carolina State University
Master's Degree, Computer Engineering, 2015 - 2017
Pune Institute of Computer Technology
Bachelor's Degree, Electrical, Electronics and Communications Engineering, 2009 - 2013
Grade: First Class With Distinction
Activities and Societies: Art Circle
Sir Parshurambhau College, Pune
HSC (10 + 2), Pure Sciences, 2007 - 2009
Grade: First Class with Distinction
Raosaheb Rupchand Vidyalaya, Jalgaon

High School, 2001 - 2007
Grade: A+
Activities and Societies: Music Group

Interests

Indian Classical Harmonium Player, Photography, Theatre, Blogging, Poetry

Honors and Awards

Ideal Student Award

Raosaheb Rupchand Vidyalaya

March 2007

   The prestigious award given to the best passing out student of the school.

Impetus and Concepts (2nd best project in the Image/Video Processing Category)

Pune Institute of Computer Technology

March 2013

   The national level project competition. Secured second prize in the Image/Video Processing category for the
   project 'Flow Pattern Analyzer and Sediment Quantizer'.

Certifications

CMOS VLSI Design

ni2designs - ni logic   September 2012

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Linked in.

Contact Prathamesh on LinkedIn