



Name: ABHAY KUMAR MAURYA

Designation: ASSISTANT PROFESSOR

Department: COMPUTER SCIENCE AND
ENGINEERING

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Qualifications: M.Tech.

Experience: 13+ year Teaching and 5+ year Industrial.

Area of Interest: C, C++, JAVA, DATA STRUCTURE,
PYTHON, SQLite Database , MY SQL Database.

Publication: 08

Book/Book Chapter: NO

Patent: NO

Sponsored Projects: Smart India Hackathon

Consultancy: NO

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Summary

- Four years experience on **C++**, **VC++**, **MFC**.
- Two years experience on **qt++**, **Qt Creator**.
- Sound knowledge of C, C++, Data Structures.
- Extensive Knowledge of **File** like **SQLite Database** , **MY SQL Database**, **Windows Server**, **Exchange Server**. And others like **XML**, **DXF**, and **JPEG** etc.

Experience

- **Feb 2011 – Present Ashoka Institute of Technology and Management**,
I have **13+ YEAR** teaching experience as a Assistant Professor in Computer Science and Engineering. Department at Ashoka Institute of Technology and Management, Varanasi and **5+ Year** experience as Sr. Software Engineer.
Job Title: Assistant Professor
- **Mar 2010 – Feb 2011 Shriv Comm. Media Solutions Ltd, D-100, Noida Sec-63.**
Job Title: Sr. Software Engineer
Responsibility:
 - 1) Working on designing GUI & coding phase of Software.
 - 2) Working on design & coding phase.
- **May 2009 – Mar 2010 SMX iExplorer Software Services (I) Pvt. Ltd, Delhi**
Job Title: Innovator
Responsibility:
 - 1) Working on designing GUI & coding phase of Software.
 - 2) Working on design & coding phase.
- **Apr 2007 – Apr 2009 VMD CAD & GRAPHIC TECHNOLOGIES Pvt. Ltd. Haryana.**
Job Title: Web Developer
Responsibility:
 - 1) Working on designing GUI & coding phase of Software.
 - 2) Working on design & coding phase.
- **Aug 2005 – Apr 2007 HyTech Services, Delhi**
Job Title: Software Developer
Responsibility:
 - 1) Working on designing GUI & coding phase of Software.
 - 2) Working on design & coding phase.

Professional Qualification

Master of Technology (M.Tech.) Specialization in computer science and engineering from J. S. University Shikohabad of Firozabad disdriect, Uttar Pradesh in year 2020.

Master of Computer Applications (66%) from Technical Education & Research Institute, P.G.College, Gazipur which is affiliated to U.P.Technical University Lucknow in year 2004.

Academic Qualification

- Bachelor of Science from Purvanchal University Jaunpur (U.P.) in year 1999.
- **10+2 (PCM)** from U.P. Board in year 1996.
- **10** from U.P. Board in year 1994.

Skills

- **Operating System** : MSDOS, Windows Me/NT/2000/2003/XP, LINUX.
- **Languages** : C, C++, VC++, ATL/COM.
- **Database** : ORACLE, MS ACCESS, SQL Server, SQLite, MYSQL.

Project Detail

- **Software** : **MAGMA in Shriv Comm. Media Solutions Ltd**
- Duration** : Mar'10-Current.
- Language** : VC++, Qt Creator Framework, SQL Server 2005.
- Team Size** : 16
- Role** : Design and Development of the code.
- Description** : *Develop a dental software for Magma using different kind of inputs and outputs to be applied in areas like orthodontics, implantology, surgery, radiology, etc, right now all the tools that we will develop are to work with orthodontics and surgery only.*
- Platforms**
 - Windows XP and above versions.
 - Mac OsX and above versions.

Translation

The software will be developed in English but is necessary to have a tool to translate to other languages. The translation responsibility is from Bioguide.

Modules:

Patient Organizer: *Control the patients records in a database allowing to include, edit and delete patients and will be necessary to implement a "Timepoint Control" which will divide the records in groups of dates. In each timepoint the user will be able to input as many records as he need, independent of what he input in a different timepoint of the same patient, what means that each timepoint is absolutely independent of the other.*

Image Gallery : a. *Each image will be organized (divided) by Timepoints inside the patient record.*

b. *This module will manage the images/pictures, importing from an external files (like JPG, PNG, BMP, etc), generated from snapshots of the own software interface, pasted from the clipboard or dragged from different software (like PowerPoint, Keynote, Photoshop, etc).*

- c. *The images will be edited adjusting the levels, colors, cropping, rotating, reducing red-eye, etc.*
- d. *To be well aligned one picture to each other will be generated at the capturing interface multiple guide lines (horizontal and vertical) that the position are adjusted by the user.*
- e. *The images will be organized in different groups:*
 - i. *Extra Oral (Bioguide are supposed to supply with all the extraoral pictures)*
 - ii. *Intra Oral (Bioguide are supposed to supply with all the intraoral pictures)*
 - iii. *X-Rays (Bioguide are supposed to supply with all the x-ray pictures)*
 - iv. *Treatment Simulations (this area will storage all the treatment simulations, executed by the user)*
 - v. *Extras (this are extras pictures, so the software don't know what picture are this)*
- f. *The images will be grouped in different compositions (3, 6, 8 and 10).*

Ceph Tracing : *This module consist on trace over a Lateral Ceph X-Ray, where we mark some landmarks and the software will draw some anatomical structures, lines, segment of lines and will do several measurements defining with all this what we call Cephalometric Analysis.*

Treatment Simulation : *This module consists on the superimposition of the Lateral Ceph Tracing to the Right Profile Picture of the patient to simulate the treatment.*

3D InPut : *This module consists on the input of different kind of files and will feed all the solution with meshes, volumes, etc.*

The software will only import triangle meshes (OBJ, STL or BGD files),The software will import DICOM files (from Computer Tomography) and generate triangle meshes from this files.

3D Studio : *This modules are collect a STL files import and export.*

3D Surgery: *This modules are collect a 3D simulation like Virtual Base, Morphing, Teeth Segmentation, Rotations on different-2 axis .*

➤ **Software** : **SONA - MES.**

Language : VC++

Team Size : 6

Role : Design and Development of the code.

Description : *The aim of the project is a powerful in car entertainment system that has the following features :*

Entertainment : *passenger can watch movies, listen to songs, catch on the latest news, and fashion TV program. All programs are recorded and updated in the car's system by wireless LAN.*

Internet Access : *Passenger can uses our fully featured web browser to view your favorite sites.*

Maps : *passenger can view the map of predefined location.*

Routing : *Passenger can view the position on map where he is now moving..*

Billing : *Software should have the facility to pay the bill using credit card. Either on hourly basis or on distance covered basis. The billing would be calculated based on the rate list that is linked to the duty slip. Also there*

should be provision for the client to enter additional payments like the toll tax or parking charges as paid in the duration of the car rental to the bill.

Upload & Download : *The latest content onto the cars and downloading of the data as recorded in the cars.*

Health monitor : *The hardware and application as installed in the car.*

Integrated with GPS : *To capture the position of the car on regular time intervals to be plotted on the Google Earth or Google Maps.*

Touch Screen : *Screen will be attached on back of head rest in the car. Software should be compatible for 6 inch screen.*

- **Software** : **Exchange Server Full and Incremental Backup And Restore Utility.**
 - Language** : VC++
 - Team Size** : 2
 - Role** : Coding.
 - Description** : *The aim of project is full and incremental backup and restore to exchange server with the help of volume shadow copy services API given source to destination location and calculating size of backup data and destination space and also generated schema xml file its record maintain backup time, type and file location record.*

- **Software** : **Canon Camera API .**
 - Language** : VC++
 - Team Size** : 2
 - Role** : Coding.
 - Description** : *The aim of project is to control cameras connected to a host PC, digital images created in digital cameras, and images downloaded to the PC. This Application describes the collection of functions implemented in the EDSDK library. EDSDK provides an interface for accessing image data shot using a Canon EOS digital camera. Using EDSDK allows users to implement the following types of representative functions in Application.
Transfer of images in a camera to storage media on a host PC.
RAW images to be processed and saved in JPEG format.
Remotely connected cameras and the image being shot to be controlled from a host PC.*

- **Software** : **M.S.Outlook Full and Incremental Backup And Restore Utility.**
 - Language** : VC++
 - Team Size** : 2
 - Role** : Coding
 - Description** : *The Aim of this project is full and incremental backup and restore to M.S.Outlook pst file, signatures, account setting file etc.*

- **Software** : **Globus Installers.**
 - Language** : VC++
 - Team Size** : 1
 - Role** : Coding
 - Description** : *The Aim of this project is to multiple application installers combined in to single application with the help of Inno setup to creating setup file.*

- **Software** : **Direct Numerical Control (DNC) software.**
Language : VC++
Team Size : 4
Role : Design and Development of the code.
Description : *The aim of the project is to send data to CNC machine from computer. There may be multiple machines connected to a single computer. Software can send data simultaneously to different machines with proper synchronization. While sending data if power failure occurs, the software creates a restart file of that file without the data whose machining has been done.*
*The status of every job machined on different CNC Machines is maintained by **SQLite Database**, So that status of every machine can be watched using this database.*

- **Software** : **Image processing.**
Language : VC++
Team Size : 2
Role : Coding.
Description : *The aim of project is to read BMP format only and some operation on that file like adding some notes or text to that file and save that file after these operations.*

- **Software** : **.DXF (AutoCAD File) File Viewer.**
Language : VC++
Team Size : 4
Role : Coding
Description : *The Aim of this project is to read the .dxf file (AutoCAD File) format, then Draw the whole entity of file in the view. We can view the .dxf file using this software. **Zoom In, Zoom Out and Move** the Drawing Utility is also available in this Software. We can also select any entity of drawing and save the coordinate of that entity using this software.*
We can also generate the NC Program using the save coordinate of selected entity.

- **Software** : **System Information Utility.**
Language : VC++
Team Size : 1
Role : Coding
Description : *The Aim of this module is give the information of System i.e., **Bios, Processor, Memory and Hard Disk information**. This module read the Bios data in given sector of memory. First we find the Sector & Offset of data, and then we read the specified sector of memory.*

- **Software** : **Image Viewer.**
Language : VC++
Team Size : 1
Role : Coding
Description : *The Aim of this module is show any image file format in **Thumbnail View** (CListView) using CXImage Library. CXImage Library is a C++ Class that can load, save, and display the image.*

➤ **Software** : **NC Calculator.**
Language : **VC++**
Team Size : **1**
Role : **Coding**
Description : *The Aim of this module is calculate any line, angle, coordinate, feed, speed and formulas that used in the NC Programming.*

➤ **Software** : **Simulation.**
Language : **VC++**
Team Size : **4**
Role : **Coding**
Description : *The Aim of this project is to read the NC Program file format, then draw that file line by line in the view. We can view the NC Program file using this software. **Zoom In, Zoom Out and Rotate** the Drawing Utility is also available in this Software. We can also set the speed of Simulation using the slider control. At the time of simulation it change the tool automatically Form tool database.*

It supports all **G-Code, M-Code, T-Code, S-Code** etc... of NC Program.

➤ **Software** : **Macro.**
Language : **VC++**
Team Size : **3**
Role : **Coding**
Description : *The Aim of this project is generate the NC Program. There are some programs that are small and used continuously to different jobs and do the same work. So to make this programs another module is used known as computer assisted programming. User only gives us x, y and z coordinates with some other parameters and appropriate file is created.*

*We can also generate the combination of many type of NC Program it is **Lathe And Mill** both are different type of machining program **Drilling, Grooving, Pocketing, Facing, Slotting, Turning, Threading, Tapering** and so on.*

Personal Details

- **Date of Birth** 1st, Sep, 1978
- **Father's name** Sri Shravan Kumar
- **Pan Number** AVLPM7956M
- **Passport No.** J3160796
- **Marital status** Married
- **Nationality** Indian
- **Languages Known** Hindi, English
- **Hobbies** Listening to music, watching and playing Cricket, Reading Books.

Date 21/08/2023

Place: **Varanasi**

(**ABHAY KUMAR MAURYA**)