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*Career Objective*:  To procure a position as a developer and contribute my skills, creativity and expertise for the development and growth of the organization.

## *Professional Summary:*

- Over 4+ years of professional IT Experience in analysis, design, development, testing and implementation.
- Good Knowledge of Object Oriented Development OOP/OOD.
- Experience in programming with .NET framework (4.0, 3.5, and 3) using C#, ASP. Net MVC.
- Used a variety of languages, development tools, frameworks and relational database management systems.
- Enthusiastic project-oriented team player with solid communication skills and leadership skills to develop creative solutions.
- Experience with Agile Methodologies (SCRUM).
- Great ability to write and maintain clearly, well-documented, well-commented and efficient code.
- Research oriented, motivated, proactive, self-starter with strong technical, analytical and interpersonal skills.
- Experience to work in a fast paced environment with strict deadlines.

## *Qualifications Summary:*

- Software Engineer I, Bentley Systems Inc., USA                            (Feb'12 - Present)
- Web Master & Assistant System Administrator, Louisiana State University, USA          (Aug '10 – Dec' 11)

## *Education*:

- M.S, System Science, Louisiana State University, USA          (Aug '10 – Dec' 11)   (GPA: 3.54/4.0)
  - *Coursework: Advanced Operating Systems, Scientific Computing, Computer Architecture, Autonomous Sensor Systems, Algorithms Design and Analysis, Distributed Algorithms, Machine Learning, Sensor Networking Concepts, Database Management Systems.*
- B.Tech, Computer Science, SRM University, INDIA          (Aug ' 06 - July ' 10)   (GPA:8.7/10.0)
  - *Coursework: Data Structures, Compiler Design, Object Oriented Analysis and Design, Operating Systems, Computer Networks, DBMS, Microprocessors, Electronic Devices and Circuits, Digital Electronics, Electric Circuit Analysis, Embedded Systems, Network Security.*

## *Technical Skills:*

- *Languages/Methodologies*: C#, C/C++, ASP.NET, Python, Perl
- *Internet Programming*: PHP, XML, JSP
- *Scripting Languages*: JQuery, JavaScript, AngularJS, Bootstrap
- *Database Technologies*: SQL Server
- *IDE*: Eclipse, Net Beans, Visual Studio .NET, Dream Weaver, Xcode
- *Third Party Tools:* Telerik Controls

## *Professional Experience:*

- Software Engineer I, Bentley Systems Inc.                            (Feb 2012 – Present)
  - Working on Various Bentley products like Open Plant Modeler V8i, which is the first 3D CAD Plant Modeling Software.
  - Involved in product development.
  - Working on projects related to User Interface and Client requests for modeling.

- Web Master & Assistant System Administrator,  CS Dept, LSU          (August 2010 - Dec 2011)
  - Responsibilities as a Web Master include designing and developing web sites using scripting languages such as HTML, CSS, JavaScript, PHP etc.
  - Responsibilities as an Assistant System Administrator include maintaining servers, managing systems in Laboratory, Troubleshooting, and Networking etc.

- *Projects Undertaken:*

**Software Developer I, Bentley Systems Inc., USA**          **(February 2012 – Present)**

- *Product:* Bentley Worksite for Completions          June 2015 – Present
  *Technologies:* C#, C++, XML, JavaScript, REST API, SQL Server, Angular JS, SSRS
  *Environment*: .NET Framework 3.0/4.0/4.5, Visual Studio 2013, Xcode
  *Description:* The main purpose of this project was to minimize the use of paper (Design's/Signoff's etc) and develop various web based solutions for companies working on-site.
    - Development of Web Application
        - Development involved in ASP.Net Web Forms and MVC, Angular JS, REST API, Telerik Controls
    - Development of Mobile App (iOS and Windows)
        - Development involved C++ and JavaScript.
    - Involved in all phases of SDLC
    - Part of a team called 'Accelerated Development', which has a regular interactions with clients and provides features with strict time limitations.

- *Product:* Open Plant Modeler(OPM) (Version: Openplant 3D Select Series 5)      September 2014 – June 2015
  *Project:* PDMx Conversion Tools (Team Lead)
  *Technologies:* C#, C++, XML
  *Environment*: .NET Framework 3.0, Visual Studio 2013
  *Description:* This project mainly involves bi-directional translation of models between SmartPlant and OpenPlantModeler.
    - Developed framework to convert SmartPlant design files into OpenPlant Design files, which enables faster and robust conversion.
    - Developed a tool which does the analysis of drawings with thousands of components and gives the overall information required for the conversion.
    - Involved in all phases of SDLC

- *Product:* i-Model SDK          August 2013 – September 2014
  *Project:* Desktop i-Model SDK
  *Technologies:* C#, C++, XML
  *Environment*: .NET Framework 3.0, Visual Studio 2013
  *Description:* Desktop i-model SDK is a standalone SDK helping 3rd party vendors or in-house developers to support i-models.
    - Involved in developing managed and simplified API for developers.
    - Developed various sample projects which makes use of SDK, to enable new developers know the significance of the API's.
    - Involved in all phases of SDLC

- *Product:* Open Plant Modeler(OPM) (Version: Openplant 3D Select Series 5)      August 2012 – August 2013
  *Project:* Plant Space Design Series to OPM Migration
  *Technologies:* C#, C++, XML
  *Environment*: .NET Framework 3.0, Visual Studio 2010
  *Description:* This project provides tools to existing PSDS users to bring their legacy models and migrate them to the Open Plant Modeler format.
    - Working on development of framework for migration of various components in PSDS format to OPM format and testing the effectiveness of the migration on various client datasets.

- *Product:* Bentley's Microstation          Feb 2012-May 2012
  *Project:* Creating Drawings (.dgn's) using command prompt
  *Technologies:* C++, Python
  *Environment*: .NET Framework 3.0, Visual Studio 2010
  *Description:* Implemented launching and drawing of various components using Python and C, C++ into Microstation using commands. Used Boost Libraries to integrate the commands and the product

- *Product:* Open Plant Modeler (Version: Openplant 3D Select Series 5)      Feb 2012-July 2012
  *Project:* Component Development for UI
  *Technologies:* C#, C++, XML
  *Environment*: .NET Framework 3.0, Visual Studio 2010
  *Description:* Developed various component graphics which were embedded to the Open Plant Modeler V8i user interface.

- ***Project Master's Thesis***: "Advanced Learning Mechanism for Smart Access Control System"
  ***Technologies:*** C++
  ***Description:*** Developed a learning mechanism that mainly deals with a set of valid secure user access, the system performs the respective learning from the valid users and learns to adapt to deviant situiations to be more user friendly, secure and accurate.

- ***Project***: " Chord Distributed Hash table Implementation"
  ***Environment:*** Java, Eclipse 3.5
  ***Description:*** Chord is a protocol and algorithm for a peer-to-peer distributed hash table. A distributed hash table stores key-value pairs by assigning keys to different computers (known as "nodes"); a node will store the values for all the keys it is responsible for. Chord specifies how keys are to be assigned to nodes, and how a node can discover the value for a given key by first locating the node responsible for that key.

- ***Project:*** "Mandelbrot generation using distributed resources"
  ***Environment:*** Simple API for Grid Applications, C++, Unix, Amazon Eucalyptus Cloud
  ***Description:*** Involved in implementing and understanding of distributed application Mandelbrot picture generation by launching worker processes on more than one heterogeneous teragrid , futuregrid systems & Amazon Eucalyptus cloud.

- ***Project:*** "MapReduce implementation using SAGA"
  ***Environment:*** Simple API for Grid Applications, Linux clusters, Hadoop
  ***Description:*** Implementing distributed data-intensive applications like wordcount using programming paradigms like MapReduce. The project involves launching workers on heterogeneous machines, which process huge data files.

**Publications:**

- Smart Access Control Systems Based on Behavioral Profiling Technique
  Authors: Karthik Nagabandi, Dr. Jong Hoon Kim, Dr. S. S. Iyengar

**Personal Projects:**
- ***Personal WebSite***
  ***Environment:*** VS 2015
  ***Technologies:*** ASP.NET Core, MVC 6, Entity Framework Core, AngularJS, Bootstrap
  ***Source Code:*** https://github.com/karthiknagabandi/PersonalWebpage