

Ms. ADRIJA R. SEN
316 E University Street, Apt # 5
Bloomington, Indiana - 47401

E-mail: arsen@cs.indiana.edu
Cell Phone: 812-391-6071

SUMMARY

- Pursuing second year Master's degree in Computer Science. Currently working as Associate Instructor for under graduate school.
- Worked as a **Technical Leader** with Geometric Limited, India. Technically led a 5 member team.
- ~6 years of professional experience in computer software industry, November 2003 – August 2009.
- Actively involved in all SDLC phases of product development based on **OOAD concepts, using C++ and Windows programming.**

EDUCATION

- **Indiana University**, Bloomington, Indiana Aug 2009 – May 2011
Masters, Computer Science **GPA: 3.68 (1st-2nd Sem)**
- **Pune University**, Pune, India Jul 1999 - May 2003
Bachelor of Engineering in Computers **First division**

WORK EXPERIENCE

- **DS SolidWorks Corp, Boston, USA** -- *Summer Intern - R&D group* May 2010 – Aug 2010
 - Implemented the POC for equations in numeric control. Lets user write equations & link values directly in the numeric control of SolidWorks defining sketch dimensions. (C++, MFC)

- **Geometric Limited, Pune, India** -- *Software Engineer -- Sr. Software Engineer -- Tech Lead*
Wonderware Global Service,

- Client: Invensys, Wyomissing, USA End Customer: Alcoa, Brazil Apr 2008 – Feb 2009
 - Worked on Manufacturing Execution System (MES) for production and process control.
 - Designed & developed the Supply chain connector (SCC) module of Factelligence. It's an interface between MES side (Factelligence) & ERP side (Oracle Apps).
 - Stabilized the product for Go-Live. Involved working on large volume of real time data streaming in from the manufacturing plant. (Oracle 10g , PL-SQL, C# .Net)

SteelWorks

- Client: AMV srl, Italy Jul 2006 – Mar 2008
 - Won the project by requirement gathering and successful prototyping at the customer end.
 - Developed algorithmic utilities for faster calculation and rendering of 3D data and SteelWorks 3D grid structure in SolidWorks. Gives parametric behaviour to the whole structure.
 - Designed the architecture of various modules. Design strongly based on **Design patterns and OOAD concepts.** (C++, ATL COM, SolidWorks API, C# .Net)

SolidWorks Design Checker

- Client: SolidWorks, India Sep 2004 – Jan 2006
 - Played a key role in **conceptualizing** the product based on the requirements.
 - Designed the architecture of the product, strongly based on object oriented concepts.
 - Designed and developed high end customized user interface of the product. Extensive usage of various **Microsoft windows programming building blocks.** (C++, MFC, Win 32 SDK, COM, ATL)

iASYS Technologies, Pune, India -- Software Developer

OE Report & Log Viewer

Nov 2003 – Aug 2004

- Requirement gathering, development and bug fixing.
- Efficiently used OS concepts to handle multi threading for inter process communication across modules. (C++, MFC, Win 32 SDK, COM, ATL, Excel Automation, OLE, ADO)

TECHNICAL SKILLS

- Languages C, C++, VB, XML, C#, UML, PLSQL, HTML, CSS, XSLT
- Frameworks VC++ (MFC), SDK (Windows Programming), SolidWorks API Programming, ATL COM, Basics of .Net 2.0 and 3.0, Factelligence middleware API set, OpenGL
- Concepts OOAD, Design Patterns and Principles, Raw COM
- Databases Microsoft Access, Basics of Microsoft SQL Server 2005 and Oracle 10g

ACADEMIC PROJECTS

Dishnet Research Lab – Intern

Jan 2003 – May 2003

- Implemented P2P Video Conferencing Desktop Application using H.323 protocol stack.
- The project was **ranked best** in the class of year 2003. (C++, H.323 protocol library, MFC)

Indiana University, Bloomington

Research Assistant (Advisor: Prof. Kris Hauser)

Sep 2009 – May 2010

- Was part of the Intelligent Motion Lab (IML) team. IML is into the research of motion planning and control for intelligent robotics system.
- Analyzed various possible data structures and algorithms for collision detection between point cloud data sets. Implemented an efficient dynamic collision detection algorithm using hashing based spatial grid data structure. (C++, OpenGL)

Course Projects

- Working on a project to implement PhyloD application with **DryadLINQ**. Its part of cloud computing course. (C# .Net)
- Implemented Reliable UDP using TCP features i.e. header design, sliding window protocol, adaptive re-transmission and congestion control. (C++, Linux)
- Implemented herding, a group control behaviour of a robotic agent (Surveyor) that acts like a Shepherd and herds a group of other agents (Pleos) towards a goal area. Part of behaviour based robotics course. (Java, Linux)

RELEVANT COURSEWORK

Graduate Coursework: Computer Networks, Elements of Artificial Intelligence, Behaviour based Robotics, Theory of Computer Science, Cloud Computing, Statistical Learning, Scientific Computing

Undergraduate Coursework: Data Structures, Design and Analysis of Algorithms, Database Concepts, Operating Systems

ACHIEVEMENTS

- Won two major projects for Geometric by convincing delivery of the product's proof of concept.
- Recognized as a **Star Performer** in Geometric for the year 2006-2007.
- Appreciated twice with **Champ award**, a performance excellence award in Geometric.