ADWAIT ASHOK JOSHI

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Computer Skills

- **Operating Systems** **:** Windows Family, Dos, UNIX, LINUX.
- **Programming Skills** **:** C, C++, VC++, VB, OpenGL, Matlab, MySQL, HTML, CSS, SQL Server 2000.
- **Scripting Languages** **:** PHP, ASP, VB Script, JavaScript, Jam.
- **Other Software** **:** MS Office, ProEngineer, ProMechanica, AutoCAD, Adobe Photoshop, Win Debugger, Flash MX.

Education

M.S. Mechanical Engineering, University at Buffalo, State University of New York.

GPA: 3.71

B.E. Mechanical Engineering, Sardar Patel CoE, Univ. of Mumbai.

Class: First **Approx GPA:** 3.85

Work Experience

- **Mindspan Systems Inc. – Software Engineer (Feb 2005)**

  Currently working on two projects as a software engineer

  HSMC : The company manages payment delivery to providers who provider child care service in the state of CA. Responsible for the development and deployment of the Case Manager application that helps the company manage payments to providers. The application is developed using Visual Basic, Crystal Reports, and SQL Server 2000. Work responsibilities include
  - Interact with users to understand requirements and enhancement requests.
  - Develop, test, and deploy enhancement requests.

  Podo Technologies : Podo Technology develops hardware and software for medical and retail footwear industry. The solution takes pressure reading from the user's feet and analyses the reading to either recommend footwear or give indications to a medical professional to aid them in their diagnosis. This system is built using VC++, Flash and Access database. Flash is used for the user interface and C++ is used as a back end for the business logic. Work responsibilities include

  - Interact with users to understand requirements and enhancement requests.
  - Develop, test, and deploy enhancement requests.

- **Chemtex Services Inc. – Application Developer (June 2004 – Feb 2005)**

  Worked in the Project Engineering department in order to develop databases and database tools for different departments such as cost estimation, proposals, marketing in order provide them with a set of tools that would help them generate contracts, estimates and bids efficiently.

- **Intel Corporation – Software Engineering Intern (Core Software Division) (Aug 2003 – Dec 2003)**

  Single handedly ported an engineering version of DCC application from IA32 to IA64 (Itanium2) using Intel 8.0 and MS Visual Studio .net compiler. The project consisted of cross compiling the existing code base, which consisted of C, C++, MEL, OpenGL, MFC and Assembly language, (IA32) for an Itanium machine and then pursuing functional debug to produce a stable system

ready for performance enhancements. As a secondary job responsibility, collected instruction traces for large applications on IA64 to be used in future processor design simulations. Investigated compiler bugs and filed bug reports against Microsoft SDK and Intel 8.0 Compilers for IA64.

- **Fisher-Price - Computer Application Engineering Intern (Feb 2003 – June 2003)**

  Assisted in the development of new and improved CAD methods within a Product Engineering Environment, with the intent of automating the application of Pro/E technology. Developed a web application to facilitate gear design using ASP and C++ wrapper programs, which created customized gear box models in ProE on the basis of different design parameters input by the designer. The idea was to develop web resources to build customized models without needing the expertise in ProE and also speed up the design process. Also assisted in developing an ASP application that interfaced with ProIntralink and Product View that would help engineers, check in, check out, and download various design files from the database.

- **RERC (Rehabilitation Engineering Research Center) - Research Assistant (Jan 2002 – Dec 2003)**
  Worked on the anthropometric research project for capturing anthropometric data with the help of FaroArm and Motion Monitor on wheel chair users. Created and maintained a relational database consisting of Anthropometric data with the help of MS Access.

Academic Projects

- **Master's Thesis – *Visualization Techniques for a Prototype Anthropometric Database***
  The thesis consisted of developing a database for storing the data collected on wheelchair participants and then visualizing it using VC++ and OpenGL. The data collected with the help of a coordinate measuring machine was raw and unfit to be directly imported to MS Access. Hence a data parser was written in visual basic to allow a simple import of data from a text file to the required Access tables. For visualizing the data, a software, AnthroDB was developed using MFC and OpenGL. The software introduced unique visualization techniques such as 3D human model; rendering of a human's reaching capabilities, providing tools for statistical analyses and providing audio visual information with the help of videos and pictures.

- **Web based design using PHP**
  Developed an application in PHP to support mathematical analyses such as Differential equations, Definite Integrals and Curve Fitting. This application also included an equation parser which was written in order to handle different types of equations.
  Application URL : http://www.adwaitjoshi.com/misc/it

  Also developed a comprehensive personal webpage www.adwaitjoshi.com using PHP, MySQL, JavaScript, CSS, HTML and Flash.

- **MFC and OpenGL**
  Developed a driving simulator and a space ship simulator using VC++ and OpenGL as a part of coursework for Graphics in CAD.

- **Bachelor's Project – *Piping Stress Analysis***
  Completed the project under the guidance of Director of CAD Center, IIT Bombay, as the principal investigator. The project mainly dealt with the study and modification of an empirical relation used in thermal analysis of piping systems to avoid fatigue failure. The modification to the empirical relation was made by comparing the results with the software analysis of CAEPIPE (v5.01). A small application was made in Visual basic which allowed the user to carry out a preliminary analysis on the piping system.

Awards and Achievements

- Receiver of the Spontaneous Recognition Award at Intel Corporation as an appreciation for successfully completing the Maya 64 bit porting project four weeks ahead of schedule.
- Receiver of the Goody Drawer Award at Intel Corporation for outstanding support in wireless networking.