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# Priyank Jain

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Charlotte, NC USA

## Career Objective

I am driven by the desire to develop games which gives me an opportunity to work with people from varied backgrounds and grow both personally and professionally.

## Skills

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|---|---|
| **Languages** | C++, C# (.NET), Java, Python, XML |
| **Framework API** | XNA, OpenGL, Qt |
| **Library** | CGAL, OpenGL Mathematics, Boost |
| **Tools** | Visual Studio 2005/2008, CMake, Netbeans 6.0.1, Eclipse |
| **Source Control** | SVN |
| **Platforms** | XBOX 360, Windows 7 |
| **Database Technology** | Oracle 9i, PL/SQL, MySQL 2005, SQL Server, JDBC |
| **Certifications** | BrainBench Certified (Java Fundamentals, RDBMS) |

## Game Projects

- **Kolor (PC)** (In progress) **www.p-yank.com**
  **Technology: C++ / OpenGL /Qt Framework / OpenGL Mathematics / Boost lib**
  - 3D First Person Shooter with a unique game mechanic of claiming enemies by Colouring
  - Custom Collada-DAE importer for importing 3D models
  - Custom Frame Transformation classes & First-Person Camera
  - Generate Bounding Sphere(s) hierarchy for the imported DAE model
  - Improved rendering utilising Vertex Buffer Objects

- **Juhuligan (PC)** **www.p-yank.com**
  **Technology: C# / XNA**
  - Side scrolling 2D-Arcade game (inspired by Mario)
  - Re-usable object oriented architecture and components
  - Game State management exploiting State design pattern & finite state automata
  - Dynamically changing Face expression on HUD representing current health using Bezier curves

- **Revenge of the Tanks (PC)** **www.p-yank.com**
  **Technology: C++ / OpenGL /Qt Framework / OpenGL Mathematics lib**
  - Turn based 2D game (inspired by Scorched Earth) using Finite State Machines
  - Destroyable landscape using pixel-based collision detection
  - Tank AI is based on Finite State machines

## Education

- **University of North Carolina, Charlotte(USA)**
  MS in Computer Science GPA: 3.8/4.00
  (Game Design & Development) May 2010
- **U.P. Technical University, Lucknow(India)**
  BS in Computer Science
  (Software Development) July 2006

## Graduate Coursework

- **High Dynamic Range Images**
  **Technology: Matlab**
  - Implemented the High Dynamic range algorithm to retrieve the original color response function for the given photographic scene
  - Final result closely resembled the natural scene and lighting conditions

- **Racquet Ball game**
  **Technology: C++ / OpenSceneGraph**
  - Simulated experience of a Racquet ball game using the CAVE Virtual Reality technology
  - Player body tracked with head mounted tracking

## Employment

- **University of North Carolina, Charlotte(USA)** July 2009 – Present
  **Role:** Research Assistant
  - Reconstruct terrain-surface from a point cloud using Marching Triangle Algorithm using C++ & CGAL library
  - Implemented Delaunay Triangulation constraint
  - Implemented renderer to view the CGAL Polyhedron model
  - Exposure to Computational Geometry concepts such as Polyhedron and half-edge data structure

- **3i Infotech, India** Nov 2007 – Feb 2008
  **Role:** Software Engineer
  - Communicated technical concepts to non-technical managers
  - Interacted, interviewed, and gathered functional user-requirements from client
  - Reviewed System Requirements Specifications

- **Mahindra Satyam, India** Oct 2006 – Apr 2007
  **Role:** Software Engineer
  - Developed conceptual prototype in J2EE technologies for an automotive sector client
  - Underwent training in advance Database concepts, PL/SQL, Informatica ETL and ASP.NET (C#)

- **Ministry of Information Technology, Govt. of India** Jan 2006 – Jun 2006
  **Role:** Intern
  - Simplified decision-making for client by facilitating managers to work at concept or knowledge level
  - Designed software individually using 3-tier architecture of Presentation, Application & Data Layer
  - Implemented design patterns using MVC framework, Data Transfer Object, Data Access Object
  - Implemented validation layer attached to Presentation and DAO Layer
  - Implemented flexible search utility giving user the option to search based on desired fields
  - Custom Exception Library bubbled through the architecture to provide useful messages to the client