**Profile:**

* Programmer with **8+ years** of programming experience.
* **Extensive experience** with **C#** and **SQL**.
* Collaborative and responsible developer, who excels at challenges.
* **Founded** an art studio in India illustrating **leadership skills**.

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| **Skills** | In order of decreasing proficiency |

**Languages** C#, SQL, C++, Java, C, Python, JavaScript, VBasic.

**Source Control** Perforce, SVN, Mercurial, Git.

**Misc.** XNA, PostgreSQL, Unreal Game Engine, WinForms, Actionscript, Scaleform, OpenGL, SQLite, ASP.NET, ADO.NET.

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| **Professional Experience** |

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| **Reto-Moto Aps, Copenhagen, Denmark** | **IT Architect/ Game Programmer/ Game Designer** | **Nov 2011 till date** |
| Involved in the development of the studio’s free-to-play MMO game “**Heroes & Generals**” <http://heroesandgenerals.com> which combines World War II FPS gameplay with strategic planning to win the war. My role in the project is:   * **Server Backend** – Designing and programming server-side event-handlers that execute a broad spectrum of tasks from the users, such as buying soldiers and equipping items on that soldier. These event-handlers cater to both a Flash based client, mobile clients as well as the game’s FPS component. * **Strategy Gameplay** – Designing and programming the strategy game’s main game loop, which encompasses all rules regarding the state of each battle in the war. * Writing **unit** and **stress tests** to ensure maximum uptime of servers running the global massive multiplayer war. * **Data Management** – A large portion of the development process involves handling and processing large amounts of data related to players in the game at any given time. The data is stored on a **PostgreSQL** database server. Many tasks related to management, upkeep, and trouble-shooting on this dataset fall into my domain. * **Game Design** – I also acted as part of the “design group” to help plan the game’s ideal design, and the steps involved in implementing them.   **Tools**: *Visual Studio, PostgreSQL, Perforce, XNA* | | |
| **IT University of Copenhagen, Denmark** | **Teaching Assistant** | **Aug 2010 to May 2011** |
| This role involved providing one on one support to students of the games line at the University. I assisted in two courses:   * **Game Design** – I acted as producer in student game projects – setting up milestones, pointing out workflow flaws and feature priorities. * **Game Development** – I held two part lecture series titled **“Introduction to Unreal Engine”** and provided individual advice regarding the Unreal Engine during student’s project development. | | |
| **Paintbox Studio, New Delhi, India** | **Co-Founder** | **Aug 2007 to Jan 2009** |
| I was part of the trio that setup this 3D art studio in India. Paintbox studio is based around the objective of bringing high standard art production to the Indian market. The company is still operative and making good on their objective. Company website: [www.paintbox.in](http://www.paintbox.in)   * Responsible for **marketing and sales**, along with managing the company’s **financial planning** and record-keeping. * Analyzed multimedia frameworks like **XNA, TorqueX, Unreal Engine 3, Actionscript** with view of incorporating them into company’s business strategy. | | |
| **Ernst & Young, Lyndhurst, NJ** | **Programmer Analyst** | **Feb 2006 to April 2007** |
| * Designed and developed a questionnaire **web application**, which used UI elements from NetAdvantage and AJAX.NET on the ASP.NET framework. Most of the programming was done in C#, along with javascript. * Provided support for **XML DOM parser** application which was used to transfer data from Sharepoint database to questionnaire-rendering database. * Administered and Managed **Database servers** (SQL Server 2000), Windows servers and **IIS.** | | |

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| **Independent Projects** |

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| **Carioca** | **Lead Programmer** | **May 2011 to July 2011** |
| Carioca is an RPG game developed as part of my master thesis project on **“Framework for Emergent Narrative”**. The project’s aim was to show how simulated game systems are better equipped at creating a more immersive narrative for players – <https://www.youtube.com/watch?v=IhSyWZQzmTE>   * **Artificial Intelligence (AI)** – Created 3 different **classes of bots**; their action behaviors are defined using UnrealScript states * Designed **AI pathfinding** based on Navigation Meshes. * Designed and programmed **SQLite database** to store game start values, dialogue data and log gameplay debug information. * Designed and programmed **Scaleform** based player **HUD**, game’s **menu system**, **dialogue screens** and to show actions of the bots. * Developed C#/WinForms applications allowing designers to generate new population of bots, and to import dialogue XML data from FlameWind Dialogue Editor to game database.   ***Tools:*** *Unreal Development Kit, Visual Studio, nFringe, UnrealScript, SQLite, SVN* | | |
| **Snowball Fight** | **Lead Programmer** | **Mar 2010 to April 2010** |
| The project involved developing a multiplayer only third-person shooter game on the Unreal engine, where kids hit each other with snowballs – <http://snowball-game.com/>   * **Technical Producer** – Adopted the role of liaising with the project manager and designers regarding production workflow and scheduling. * Created the player **HUD** in UnrealScript. * Programmed players to spawn with respective team colored clothes/HUD. * Programmed the dynamic attachment of **post-processor** in UnrealScript so as to create a mock cel-shader effect. * Administered game packaging and bug-fixing during the test phase.   ***Tools:*** *Unreal Development Kit, Visual Studio, nFringe, UnrealScript, Mercurial* | | |
| **The Gods Must be Crazy** | **Lead Programmer** | **Jan 2011 (48 hours)** |
| This game was developed during the Nordic Game Jam 2011 in Copenhagen, Denmark. The game is a 2D physics based game where players try to destroy life in a solar system by lobbing meteors. It won the **Jury’s Choice Award** from games researcher Jesper Juul – <https://www.youtube.com/watch?v=0715frM0tnY>   * Designed and programmed a 2D rendering engine written in C# and XNA. * Designed and implemented a rudimentary physics engine including real-time collision detection based on circular hitboxes as well as the simulation of object motion in space. * Designed and programmed a text based level editor. * Designed and created the game’s menu system.   ***Tools:*** *Visual Studio, C#, XNA, SVN* | | |
| **Monkey of Puppets** | **Programmer** | **Jan 2010 (48 hours)** |
| During the 2010 Nordic Game Jam, I worked on a 2D puzzle game where players have to guide the protagonist in 2D mazes while avoiding enemies – <https://www.youtube.com/watch?v=zYKgVT7f-4g>   * Designed and programmed a 2D tile-based engine using C# and XNA. * Designed and implemented the player, key and door classes. * Created a unified state management system for handling game and audio events. * Implemented AI logic allowing bots to have line-of-sight of player and ability to track to a position.   ***Tools:*** *Visual Studio, C#, XNA, SVN* | | |
| **MiniGolf/GnomeEngine** | **Programmer** | **Nov 2009 to Dec 2009** |
| Minigolf is a 3D golf game made using the GnomeEngine which is an OpenGL/C++ library I created to provide reusable rendering and physics operations.   * Provided camera control helper functions for the user. * Implemented texturing support (TGA file format) and 3D Model support (3DS file format). * Designed and created a menu system with button components managed by its container menu screen and a bunch of screens managed by a MenuManager.   ***Tools:*** *Visual Studio, C++, OpenGL* | | |

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| **Education** |

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| Master of Science Aug 2009 – Sep 2011  *Media Technology & Games - Technology* | IT University of Copenhagen, Denmark |
| Bachelor of Science Aug 2004 – Dec 2005  *Major: Computer Science, Minor: Applied Mathematics* | Coastal Carolina University, South Carolina, USA |

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| **Personal Information** |

**Nationality** Indian

**Language Proficiency** English –Fluent (written and spoken); 8.0 IELTS Overall Band Score

**Interests** Photography, bouldering, paintball, video games, board games

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| **References** | Contact information for references will be furnished upon request |

* **Tobias Larsen**, Ex-Backend Programmer, Reto-Moto.
* **Henrik Skov Jacobsen**, Game Programmer, Reto-Moto.
* **Alessandro Canossa**, Ex-Lecturer (Thesis Supervisor), IT University of Copenhagen.
* **Krishna Maheshwari**, Director, Paintbox Studio.