

NILANKAR DEB

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Portfolio - <https://nilankar11.wixsite.com/nilankardeb>

SUMMARY

- Innovative and hard-working professional who has more than **2 years** of expertise working in a reputed MNC and a strong background in software lifecycles.
- As a software developer I have worked in **Python** for 3 years in some personal projects and 2 years professionally and I have worked in Unity for developing games.
- Engineering professional with a **Master of Science in Computer games Technology** with Dissertation on Virtual Piano using Hand Tracking in Leap Motion
- Intending to build a career as a Game Developer, exploring new heights, working on different engines and grasping new methods of programming an optimized product.

TECHNICAL SKILLS

- **Programming Languages** - C, Python 2.7/3.4-3.6, JavaScript, C++, C#, Typescript, HTML, CSS
- **Game Development Programs**: Unity2D/3D, OpenGL, MonoGame
- **Python Libraries**: Django, OpenCV, Scikit Image, MYSQL Connector, Pygame
- **Front End**: HTML, CSS
- **Database** – MySQL
- **IDE's/ Development Tools**: PyCharm, Jupyter, Visual Studio, Visual Studio Code.
- **Version control** – GitHub
- **Integration Technologies**: *Jenkins, Docker.*

EXPERIENCE

February 2022 – Present	Flying Fox	Game Developer (Unity)-(Volunteering)
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- Building game aiming to teach about crypto in Unity3D and C# for iOS and Android (VS code IDE)
- Independently optimized codebase and deployed a new source code making it scalable.
- Actively participated in discussions and proposed new methods to improve and optimize functionality.
- Programmed and executed UI, menus, and functionalities.
- Transforming design ideas into functional game feature.
- Coded using advanced Design patterns some including observer pattern and state pattern.
- Identifying and fixing code errors.
- Testing game functionality and theme dynamics.

August 2018 – September 2020	Infosys Ltd.	System Engineer -(Full-Time)
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- Writing critical SQL queries to fetch data from their database.
- Queried MYSQL database queries from Python to retrieve information.
- Oversaw bug reports, ensuring they were resolved within an adequate timeframe.
- Developed new, efficient, and well-tested code for a variety of different projects in python with lower than 30% code churn.
- Modified existing software to correct coding errors, upgrade interfaces and improve overall performance.
- Extensive code reviewing using **GitHub** pull requests, improved code quality, and conducted meetings among peers.
- Preparing weekly status report and presented same to business.
- Working in **Agile** environment.

EDUCATION

- **MSc Computer Games Technology from City University of London (2020-2021)**

Relevant modules: Game Development Process, Advanced Game Technology, C++, Computer Graphics, Computer Games Architecture

- **B. Tech Computer Science Engineering from Saroj Mohan Institute of Technology (2014-2018)**

CERTIFICATIONS & PROJECTS

Certifications:

- **NPTEL** Certified in Data Structures and Programming in Python,
- **Webtek Labs** certified in Basic HTML and CSS

Projects:

- **ROLLER COASTER SIMULATION** This project is an implementation of graphics concept shown as a roller coaster simulation
 - The roller coaster is made using Catmull- Rom Spline
 - Used shaders to implement effects and lighting
 - Implementation of basic primitive, advanced rendering techniques, camera techniques etc.
 - Made in custom built engine using OpenGL and C++
- **VIRTUAL PIANO SIMULATION** This is a dissertation project made to study the difference in learning of a piano when the feedback from keys to fingers are taken away
 - Project uses Leap Motion to track hands.
 - A simple 3d piano is presented on the screen.
 - By putting hands on top of leap motion we get a 3d version of our hands on screen.
 - The piano can be played by moving hand in air on top of leap motion.
 - This project was made in Unity.
- **CLONESCAPE** A project made as a part of a game jam with the theme stronger together where player must make its own clones to cross the levels.
 - Simple controls in a very black and white environment.
 - The game was made in 7 days.
 - It was made using Unity
- **WORDLE CLONE** A simple clone of the famous game wordle in which 5 letter word has to be guessed in 6 tries.
 - The game has same mechanics as the original game with different graphics.
 - Implementation of grid resizable according to screen size.
 - Used proper design patterns to build the whole codebase.
 - Further additions include more than 5 letter words, using API to get the meaning of the word guessed from the dictionary.
 - The game was made in Unity.

More Projects: <https://nilankar11.wixsite.com/nilankardeb>

ADDITIONAL INFORMATION

Languages: Fluent in English, Hindi, and Bengali

Interests: Guitar, Painting, Programming