Metali Mangal

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https://mangalm2077.wixsite.com/meta-thoughts/portfolio-videos

OBJECTIVE

Seeking Positions in Software Development (Unity, Unreal, AR/VR)

SKILLS

Game development: Unity, Unreal, Blueprints, VR, AR, Blender, OpenGL, AR Core, Open XR, Vuforia, Photon
Programming Languages: C#, C++, Java, Swift, MySQL, Perl, HTML5, CSS, GLSL, GLFW, Python
Tools: Git, Bitbucket, Visual Studio, XCode, Eclipse, Autodesk Fusion 360, WebXR, OpenVR, Perforce, Jenkins, Azure, CI/CD, JIRA, Appium
Other Skills: Game Programming, Game Automation, Game Testing, ATD, Collaboration, Leadership, VR Blogging

EDUCATION

PURDUE UNIVERSITY, West Lafayette, IN — Aug 2023
Master of Science in Computer Graphics and Technology — GPA: 4.0/4.0
Area of Study: Games, AR/VR
MS (Master of Science) Thesis: Gamification of Virtual Reality Training – Effects of Visual Motivation
- Research on how game elements affect the performance in **VR training** of micro-pipette usage.
Academic Project: Society Simulator
- Leading the configuration and optimization of the CI/CD pipeline for Unreal builds within **Jenkins and Azure virtual machines**, while meticulously evaluating diverse platforms to ensure seamless builds on a dedicated server. This initiative empowers departmental students with an autonomous pipeline, resulting in expedited build processes.

MANIPAL UNIVERSITY, Manipal, INDIA — Jun 2017
Bachelor of Technology in Computer Science and Engineering — GPA: 7.69/10.0
Awarded a scholarship for scoring a rank under 1000 in the online entrance exam.

EXPERIENCE

Unity Developer (GA), Purdue Envision Center, West Lafayette, IN — Jan 2022-Aug 2023
- Developed immersive virtual simulations for laboratory environments across diverse scientific disciplines. Collaborated extensively with multiple departments at Purdue University to design and implement these labs using WebXR and WebGL within the Unity framework.
- BIO-Spinach PE: Developed a **WebXR** project to help students operate lab equipment in both Web and WebXR to be able to practice the Spinach Protein Extract measurement.
- CNC Machine: Developed a Unity **WebGL** Project to help students understand and operate the CNC Machine to cut work pieces.
Skills: C#, Unity, Autodesk Fusion 360, OpenXR, WebXR, Git, Virtual Simulations, Virtual Reality

Software Developer (Automation), Games 24x7 Pvt. Ltd., Bengaluru, INDIA — Feb 2019-July 2021
- Achieved a 30% enhancement in testing efficiency by driving the creation and upkeep of the Game-table automation framework. Additionally, orchestrated the establishment and management of the **CI/CD pipeline** for build automation using Jenkins.
- Enhanced the Unity application automation capabilities within the game table framework, contributing to my proficiency with **Unity** and training the team in advanced automation techniques.
Award: Extra Miles Award for the **iOS** Automation framework of the Game-table in RummyCircle Application.
Skills: Java, Appium, C#, Unity, Appium Test Distribution, Git, BitBucket, Jenkins, CI/CD, JIRA

Software Developer (Automation), Sling Media, Bengaluru, INDIA — Oct 2017-Jan 2019
- Designed and developed the Automation framework of Sling Studio, covering the integrated testing of the iOS and macOS applications.
- Pioneered the independent development of the iOS automation framework, responding adeptly to team needs and requirements.
- Award: Spot Award for the iOS Automation framework with the IoT (Internet of Things) Integration of the Sling Studio Box.
Skills: Appium, Java, XCode, Swift, IoT automation testing, Git, JIRA.

Software Developer (Intern), Citrix R&D, Bengaluru, INDIA   Jan 2017-July 2017

-Developed the Automation of the Citrix Netscalar's interface functional testing using DPDK-Pktgen. We used DPDK-Pktgen to send and receive packets from the interfaces to test their performance.

Skills: Perforce, Lua, DPDK-Pktgen, Perl.

PROJECTS

For expanded portfolio, please visit: https://mangalm2077.wixsite.com/meta-thoughts/portfolio-videos

Social VR Amusement Park   Jan 2022- May 2022

- Collaborated and led the development of a Multiplayer VR Application where VR players can socialize in the Amusement Rooms. Responsible for network implementation of whole application.

- Skills: Unity, C#, Photon, Git, OpenVR.

Shroom Splicer   Jan 2022- May 2022

- Implemented mushroom genetic algorithms for diverse procedurally generated mushrooms, along with a team to create a mushroom splicing game.

- Skills: Unreal, Blueprints, C++, Procedural Content Generation, Data tables, Git.

Flame in the forest   Aug 2021- Dec 2021

- Built a VR game to prevent a character's forest destruction along with a team and worked as the VR Programmer and Source Control Manager in Unreal.

- Skills: Unreal, Blueprints, Git, VR development.

Unity Tutorial in VR   Aug 2021- Dec 2021

- Created a VR-based Unity tutorial to enhance learning, leveraging Unity, C#, and Photon expertise.

- Skills: Unity, C#, Photon, Git, OpenVR.

Ninja Challenge   Aug 2021- Dec 2021

- Designed and programmed a fast-paced ninja obstacle game on Unreal Engine, where a player must navigate through different challenges to progress the game.

- Skills: Unreal, Blueprints, C++.