Shreevallabh Sunil Kulkarni

shreevallabh29@gmail.com ✉

Online Portfolio Link: www.shreemdesigns.com

(585) 623-3990 📞 Rochester, NY 📍

Summary

Software Engineer with experience in the field of game development and web development, including gameplay programming, artificial intelligence, procedural generation, virtual reality, and theory-crafting.

Experience

Software Engineer | Skillsoft Corporation, NY | August 2019 – Present

- As part of R&D, developed VR training simulations for critical safety procedures, including fire extinguisher usage and identifying electrical failures, to improve user training and preparedness
- As part of R&D, created interactive 3D scenarios for tracking object trails, allowing drawing capabilities within virtual environments.
- Contributed to multiple microservices within the existing codebase, adding functionality and resolving bugs
- Integrated digital badge system into the company's codebase, enhancing credential management and recognition within the product.

Software Engineer Intern | Skillsoft Corporation, NY | April 2019 – August 2019

- Implemented various frontend and backend features through full-stack development using JavaScript, React, and PostgreSQL
- Prototyped implementation of gamification in the company's product to make it more engaging to the users

Education

Rochester Institute of Technology, Rochester, NY, USA | August 2016 – December 2018
- o Master of Science in Game Design and Development, GPA: 3.87

Sinhgad College of Engineering, Pune, India | 2012-2015
- o Bachelor of Engineering in Computer Engineering

Technical Skills

Programming Languages: C, C++, SQL
Scripting Languages: Unity C#, LUA, JavaScript. Papyrus (Scripting language of Skyrim Creation Kit)
Game Development SDK's: SourceSDK, Unity, Unreal Engine, Skyrim Creation Kit
Miscellaneous Tools: Git, UML, Autodesk Maya, NodeJS, PostgreSQL

Notable Projects

- **Anomalous Behavior of an AI Animal**   **(Solo Project, Oct'17-Dec18)**
  Designed and implemented an AI animal using steering behaviors and subsumption architecture. The autonomous AI demonstrates the behavior of "seeking for food" and "fleeing from enemy". Developed using Unity Engine and C# code.
- **Quest and quest chains system**   **(Solo Project, Nov'18-Jan'19)**
  This standalone game system is made in Unity Engine and can be integrated into any game. Quests can be added in MS Excel sheet, and they will be available in the game. Quest parsing is done using C# code.
- **Procedural generation of a 3D low poly world**   **(Solo Project, Aug'17-Oct'17)**
  The world showcases 2 biomes: A landscape with mountain range and Islands. Developed using Perlin noise and C# scripting.
- **APM (Actions Per Minute) counter game system**   **(Solo project, Oct'18-Dec'18)**
  This standalone game system is made in LUA and can be integrated into any game. It can help developers to collect APM of their target audience in the background of a game to learn more about the player's reaction time.
- **Elemental Rift (master's level capstone project)**   **(Group Project, Oct'17-May'18)**
  This is a story-based 3D game made by 7 developers using Unity Engine. The project was accompanied by a thesis on "How to use Negative Possibility Space to improve Level Design and Rewards system". Contribution includes level design, puzzle design and programming, enemy encounter design, and rewards design.

Paper Publications

- PC Game Controlling through Android Mobile using Wi-Fi Network (Publisher: IJEMR, Date: April 2015)
- Randomized Generation of Game Levels using Binary Space Partitioning (Publisher: IJEMR, Date: April 2015)