HET SHAH

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EDUCATION

Masters in Computer Science, California State University, Northridge **August 2021 - May 2023**
Bachelors in Computer Science, Gujarat Technological University, India **August 2014 - May 2018**

TECHNICAL SKILLS

- **Languages & Databases**: C#, C++, Java, Python, MySQL, MongoDB
- **Game Engines and other tools:** Unity, Unreal, Git, Perforce, Plastic-SCM, Docker, Azure Data Studio
- **Frameworks:** ASP.NET MVC, Photon, ML-agents, React, Node.js, Tensor-Flow, CUDA
- **Web Technologies & Cloud**: HTML5, CSS, JavaScript, AWS (EC2, S3, Redshift)

WORK EXPERIENCE

Gameplay Engineer Intern | Refactor Games | Los Angeles **May 2022–August 2022**

- Collaborated with core Engineering team to implement new gameplay features in Football-Simulator project.
- Modernized and Refactored existing code-base to improve performance in gameplay Frame-rates by **35%**.
- Improved code efficiency by fixing 100+ P4V diagnosed bugs through code refactoring.

Software Engineer | Dweek Studios | India **September 2019 – May 2021**

- Upgraded digital learning bundles of Interactive Educational games and Simulation Experiences.
- Facilitated brand consistency and enhanced the product's application by adding 5 reusable design pattern components and functionality that led to increase in overall efficiency and transparency by **20%.**
- Modified existing legacy code base to resolve critical bugs, upgrade User Interface and improve **performance** which executed **3x** faster altogether utilizing JIRA to keep track of issues and analyzing progress using Agile methodology.

Software Engineer | iDivine Creation Technologies | India **December 2017 - August 2020**

- Led the development of online Multi-player shooter games from scratch using Unity 3D, C# and Photon.
- Optimized and solved logical, functional, designing, and computational errors by using Profiler, Static and Dynamic Batching, Occlusion Culling, Baked Lights and Object Pooling to maximize performance by achieving over 60+ FPS.
- Engaging with updated builds and patches to identify and report on gameplay-performance, graphics settings, VFX, UI/UX and replay-ability resulting in **40%** more productivity time for bug fixing.

PROJECTS

Football-Simulator | Refactor Games | C#, Unity 3d, Microsoft GDK, Perforce, Steam Input

- Pioneered the development of Multiplayer co-op, Team Select and Dynamic D-pad player-position modifier, some of the marquee features for the title.
- Engineered tweaking in the replay system through serialization of transform coordinates and saving them per frame.
- Streamlined in-game player switching algorithm from Round Robin to Nearest Neighbor cardinal direction system which led to an improved gaming experience.

Mini Shooters | Dweek Studios | C#, Unity 3d, Android SDK, Xcode

- A creatively designed digital curriculum for the kindergarten students mapped with international preschool curriculum which also has over a 100 of Learning Games, Puzzles, Interactive Stories.
- Implemented features such as marking attendance, generating and displaying reports for children and tutors. Revamped application structure by implementing addressable asset system which optimized a lot of memory and increased startup time by **30%**.
- Performed integration of all the existing data, features and records of 5 different Preschools mapped with International Curriculum in the newer version altogether maintaining a scalable code.

Virtual Expo | Dweek Studios | C#, Unity 3d, WebRTC, Android SDK, Xcode, WebGL, Git

- Authored implementation of in-app video/audio call and texting feature using WebRTC.
- Designed an interactive and complex dashboard system, implemented user authentication via O-auth 2.0

Mini Shooters | iDivine Creation Tech. | C#, Unity 3d, Photon, Android SDK, X-code

- Built a competitive FPS game for Android and IOS with 6 different modes for LAN and Online Multiplayer which has **100k+** downloads.
- Programmed core game-play logic, game-mechanics, in-game UI, character controller and animations, weapon select system, apparel inventory system, player profile, achievements, daily-bonuses and challenges.
- Writing and maintaining engine Plugins and external tools such as: Login, Share, Invitations (Facebook SDK), In-app purchase, Google Mobile Ads, Photon Unity Networking.

NLP Disaster Tweet | CSU, Northridge | Python, Google-Colab, GloVe, Git

- Operated on dataset provided by Kaggle which consists of Tweets, Keywords, Location and Target value.
- Devised GloVe, a vectorization technique to contextualize words for classifying tweets with an accuracy of 86%.

Chess Engine | CSU, Northridge | Unity 3D, C#, Git

- Demonstrated the implementation of "Chess" using game-tree algorithms (α–β pruning and minimax) which conceptualized a suitable algorithm that can take advantage of parallel processing which reduced the execution by **50%** less computational time with the help of α–β Algorithm.