

Summary

With engineering experience across the stack, I enjoy both technical and creative aspects of product development. I put people first, identify growth opportunities and bring them together to build a highly functional team who have then built amazing features.

Employment

- **Engineering Manager, Linden Labs** May 2017 – Present
Sansar – MMO VR Platform
Technology: C++, Kafka, MVVM, Kanban
 - Led strategic gameplay features from inception to launch, increasing Day 3 user retention 3X
 - Bootstrapped commerce store which increased sales conversion and has a 90% traffic adoption rate
 - Defined strategic direction of product working closely with product and project Manager
 - Ran a team of 6 engineers spanning geographic locations and job functions
 - Hands on with design discussions and code reviews with engineers
 - Mentored engineers from different backgrounds and helped them grow in their careers
 - Align engineers' aspirations with strategic opportunities for the company leading to a win-win
 - Identified risk and blockers, and cleared the critical path for on-time delivery
 - Enabled transparency across stakeholders and engineers using Jira's Kanban methodology
 - Responsible for handling outages and coordinating efforts to get them resolved in a timely manner
 - Evolved the UI infrastructure which decreased development time and established standard idioms
- **Lead Engineer, Cavium Inc. (acquired by Marvell Tech)** Feb 2014 – May 2017
SDK development
Technology: C, C++, Python, GDB, Valgrind
 - Drove the effort to open source SDK & worked on shaping the SDK from inception to launch
 - Member of the gatekeeper team responsible for reviewing APIs for performance & memory leaks
 - Coached and ramped up junior engineers on the team
 - Fixed memory leaks in simulator from 1.9Mb to 0 bytes/packet using Valgrind
 - Designed and implemented network topology to simulate single unit, multiple devices to communicate with outside world and each other using TAP interfaces, python and xml config
- **Software Engineer, nVidia Graphics** Oct 2012 – Feb 2014
Technology: C++, WinDbg
 - Implemented power management and a tool which deals with hysteresis for Windows Blue & Win8
 - Implemented display context switching on the fly between native GPU and nvidia GPU
 - Lead initiative to ensure both new and old features are backwards compatible with changing hardware
- **Software Engineer, WeAreHolidays Pvt Ltd.** Jan 2012 – Sep 2012
Travel Web platform
Technology: Java, JPA, Maven, Struts 2, Spring 3, MySQL, Guava
 - Developed the core API of the product, with performance and design as its key focus
 - Integrating external APIs for rapid prototyping new ideas
 - Lead team of 3 people to deliver product with zero codebase and aggressive timelines
 - Defined agile processes to improve productivity and bring visibility in team performance
- **Software Engineer, hi5 Networks** May 2011 – Oct 2011
Social gaming/commerce platform
Technology: C#, WCF, SQL Server 2010
 - Developed commerce portal with a pluggable architecture integrating multiple payment providers
 - Developed end-to-end Credit Card payment system with PCI security compliance
 - Developed Analytics API which enabled game developers to publish events consumed by BI team
- **Software Engineer(Contractor), Verizon** Nov 2010 – Apr 2011
Technology: C++, Python
 - Developing framework for inserting ads in HTTP live video streaming on server side
 - Prototype adaptive bitrate video streaming media player on android OS

- Maintain legacy code and integrate it with newly developed product for backward compatibility
- **Software Engineer(Contractor), Electronic Arts** July 2010 – Oct 2010
FIFA 3DS (Nintendo 3DS)
Technology: C++ , C# , ActionScript2, Nant Scripts, Python
 - Implemented rendering primitives to support in-game User Interface elements in depth
 - Collaborated extensively with the UI designer to get menu system working in game
 - Managed the build process to support asset pipeline & multiple build configurations
 - Worked closely with other team members to ensure project deliverables are completed on-schedule

Independent Projects

- **WordsAway** May 2016 – May 2017
Unity/Android Indie Game
Technology: C# , Unity, Python
 - Built this indie game from grounds up with the only engineer on the team and over 10K+ downloads
 - Leveraged metrics to identify hotspots and improved player on-boarding from 20% to 80%
 - Implemented Player Assist for balancing the game leading to better completion rates
 - Architected Event Aggregator using publisher/subscriber and generics for decoupling modules
 - Implemented Trie data structure optimized for space and constant lookup time
 - Developed a level editor for game designers to adjust the game play & build new levels
 - Enabled artists to associate FX prefabs with game events by implementing generic Unity components
 - Designed object allocation/reuse by dynamically creating object pools with a tight upper bound
 - Procedurally generated letters optimized to use only one sharing material / texture atlas
 - Designed & implemented special powerups based on event aggregator module
 - Implemented menu navigation (including popups) by dynamically loading different scenes
 - Dynamically updating letters using shaders to reflect score multipliers / selected state
- **HoloHear (Hololens)**
 - Developed app for people with hearing disabilities to translate words to sign language in realtime
 - The app won first prize amidst 20 teams at the Microsoft SF Hololens hackathon
- **Kolor (PC)**
Technology: C++ , OpenGL, Qt Framework, Boost, OpenGL Mathematics
 - Designed 3D First Person Shooter with a unique game mechanic of claiming enemies by coloring
 - Developed collada-DAE importer to use 3D models into the game
 - Generated Collision detection Bounding Spheres hierarchy information for the imported DAE model
 - Implemented efficient hash-based collision detection/resolution for players and bullets
- **High Dynamic Range Images**
Technology: Matlab
 - Implemented HDR algorithm to retrieve the original color response function for a natural scene
 - Final image result closely resembles natural scene and lighting conditions as seen with naked eye

Education

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| University of North Carolina, Charlotte | May 2010 |
| MS in Computer Science (Graphics and Visualization) | GPA: 3.8/4.00 |
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U.P. Technical University (India) |
July 2006 |
| BS in Computer Science (Software Development) | |