

EDUCATION

Master of Entertainment Technology | Carnegie Mellon University, Entertainment Technology Center, Pittsburgh, PA (May 2019)

Relevant Courses: Building Virtual Worlds, Visual Story, Java for Application Programmers, Data Structures and Algorithms, Production and Leadership

Bachelor of Information Technology with Specialization in Network Programming | VIT University, Vellore, India (May 2017)

Relevant Courses: Computer Networks, Computer Graphics, Operating Systems, Introduction to Neural Networks, Advanced Java

SKILLS

Languages: Java, C#, C++, SQL

Platform: Windows, Linux, AWS, Redis, Memcache

Web: HTML, CSS, JavaScript (SailsJS, PhaserJS), JQuery

Tools: Unity, Android Studio, Adobe CC, Perforce, Git, MS Office

PROFESSIONAL EXPERIENCE

Server Engineer Intern, Dominations | *Big Huge Games* (Jan 2019 – May 2019)

- Improved usability of Admin Tools to manage the server side of Dominations - a strategy MMO game for easier use by non-technical developers and CS
- Created a custom memory and load profiler for the Chat services used in the game.

Skills Used: Java, Spring, Bootstrap, Unity, C#

Designer/ Programmer, Project NeuralTone | *Center for Neurological Behavior and Cognition* (May 2018 – Aug 2018)

- Developed NeuralTone, a 2D space invaders like game in Unity with custom analytics and configurable by researchers to study how humans react to sound as passive stimuli
- Currently being used by researchers around the world. Research from this project will be featured in the International Congress of Phonetic Science Conference 2019 in Melbourne, Australia in August 2019.

Skills Used: Unity, C#, RESTful, SQL, SailsJS

AR/VR Development Intern, Multiple Projects | *Param Labs* (Dec 2016 – May 2017)

- Led a 3 person team to port a game in Unity from Samsung GearVR to Google Daydream, which was featured on the Daydream store.
- Released a mobile VR racing game to test VR-ads created by Google team.
- Created several in-house demos for Zenfone AR prior to launch.

Skills Used: Unity, C#, Daydream, Project Tango, VR/AR/MR, Vuforia

ACADEMIC PROJECTS

Project Playgrounds, Lead Programmer | *Google Experience Center* (Aug 2018 – Dec 2018)

- Partnered with Google to create an installation to highlight the capabilities of Google Assistant. Our final deliverable was a conversational bartender with a custom table using Dialogflow.
- Designed and implemented the communication architecture between several consumer grade, custom devices and Canvas API.

Skills Used: JS, Canvas API, Philips Hue API, Machine Learning, Dialogflow

Miracle Workshop, System Architect | *Give Kids the World* (Jan 2018 – May 2018)

- Created a 5 functions animatronic robot for the NGO in Florida to tell stories and jokes to children and guests.
- Worked with industry veterans from Disney, Apple, ITEC and Weigl to create the entire show control infrastructure including sound and lights.
- Designed pipelines to convert Maya animations into motor rotations for fast iteration and development by animators.

Skills Used: JavaFX, Show Controllers – Weigl Procommander Series, DMX, Conductor, Industry grade servos (Dynamixels, Ultramotions)

PERSONAL PROJECTS

Exploration of Unity's VFX Graph in new High Definition Render Pipeline (May 2019)

Procedural Maze Generator and Unity's Pathfinding (March 2019)

- Used DFS to create a maze in Unity where every 'cell' could be visited.
- Examined Unity's A* approach for pathfinding and disadvantages of Alpha Beta pruning in the algorithm.

Firefly Flocking Algorithm (Feb 2019)

- Worked with GPU instancing to support up to 1000 individual light sources at once, all behaving as a single swarm.

Togo: A Trail of Mercy, CMU Department of Drama (Dec 2018)

- Developed a full-fledged theme park VR sled ride with synchronized movement to hydraulics.
- Deployed and calibrated the experience on-site to suit the needs of the changing ecosystem.