

Ratan George Senapathy

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1210 W. Adams Blvd., Apt #101, Los Angeles, CA, 90007

OBJECTIVE

Hardworking Computer Science graduate student with leadership skills and global experience seeking a challenging position with a leading game development company.

EDUCATION

University of Southern California (USC), California (GPA: 3.75/4.00)

May 2018 Candidate

Master of Science in Computer Science

Key Coursework: Game Engine Development, Networked Games, 3D Graphics and Rendering, Foundations of Artificial Intelligence, Algorithms

Manipal Institute of Technology, Karnataka, India (GPA: 8.56/10.00)

May 2016

Bachelors of Technology in Computer Science and Engineering

Key Coursework: Network Protocols, Distributed Computing Systems, Data Structures using C

PROJECTS

Networked Game (Unity)

Aug 2017 - Present

- Currently the team leader in charge of making a multiplayer online FPS game for a graduate course, which includes assigning work to team members, reviewing the code and integrating changes together
- Working with transport layer protocols for socket programming instead of Unity's high level api to implement networking component
- Reduced latency by using dead reckoning and is in the process of implementing voice over IP

Hunter Island (Unity)

July 2017 - July 2017

- Created a FPS shooter game, where tigers attacked the player who had to survive as long as possible or until the time ran out
- Generated entire terrain using procedural generation algorithms and added randomness to every new map generated
- Implemented an AI navigation system for the non playable characters (NPCs) to track the player down

Computer Graphics Engine (Graphics Engine)

Aug 2016 - Dec 2016

- Created a basic 3D graphics engine for a class project in visual studio and C++
- Programmed frame buffers, model view to screen view conversion algorithms, flat/gouraud/phong shading mechanisms, performed texture mapping both from a texture image and procedurally and wrote an antialiasing algorithm
- Reimplemented the entire system to use deferred rendering as part of a team project using OpenGL and C++

Game Engine Modification (PrimeEngine)

March 2017 - May 2017

- PrimeEngine is a game engine made by a graduate course professor
- Implemented parts of the game engine like bounding volumes, frustum culling, mesh loading in C++ using Visual Studio

Board Game (Java)

Sept 2016 - Oct 2016

- Created a 2 player board game with AI agent that can play the game using MINIMAX and Alpha-Beta pruning algorithms

WORK EXPERIENCE

Frenzy.AI, Los Angeles, United States

Jan 2017 - Present

Position: CTO

- Currently in charge of the Los Angeles office and collaborating with various teams to release fashion detection API into production
- Working as a full stack developer, took initiative to increase accuracy of fashion detection API that returns information about products pictured in a blog or an image by 20%
- Integrated cloud sight and deepomatic APIs in PHP and codeigniter framework for image recognition, worked on the company's API to fetch and update data from MYSQL database, set up servers on AWS and Azure and wrote scripts to use S3 storage on AWS
- Currently working here while pursuing my Master's degree
- Inventor in the patent application for the fashion detection API

SanDisk India Device Design Centre Ltd, Bengaluru, India

Jan 2016 - May 2016

Position: Intern

- Designed python based tracking tool to track invalid execution paths in firmware for more efficient firmware testing
- Reduced debugging time by 8% - 10%

Microsoft IT, Hyderabad, India

June 2015 - July 2015

Position: Intern

- Designed and developed a user friendly data tracking tool in C# and WPF to detect job failure on SQL Server and gave a visual representation of the job and database status which reduced number of work hours for searching for various errors by around 20%
- Took the initiative to design a more detailed graphical report generation mechanism for the tool

Parkyeri, Istanbul, Turkey

June 2014 - July 2014

Position: International Intern

- Linked various java libraries together, documented various relationships and interactions between libraries and wrote java servlets for a 3D online world during an international internship opportunity in Istanbul

SKILLS

Languages: Java, C++, C# (certified), PHP, Javascript, Python, HTML, CSS, Haskell, SQL, MYSQL, TSQL

Libraries/Frameworks: jQuery, OpenGL, AngularJS, Cocos2dx, Scrappy, Cloudsight API, Deepomatic API, ReactJS, Bootstrap

Software/Tools: Perforce, Github, Visual Studio, Unity, Unity VR, Android Studio, Xcode, Sublime, Blender, Maya, Microsoft Office

Operating Systems: Windows, Ubuntu, Mac OS

Services/Protocols: AWS, Microsoft Azure, REST APIs

