

Ratan George Senapathy

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

EDUCATION

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

May 2018 Candidate

Master of Science in Computer Science

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

May 2016

Bachelors of Technology in Computer Science and Engineering

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 the API that scrapes details about products in a blog by 20%
- Integrated cloudSight and deepomatic APIs in PHP using codeigniter framework and worked with 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
- 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
- Wrote java servlets for a 3D online world during an international internship opportunity in Istanbul

PROJECTS

Networked Game (Unity)

Aug 2017 - Present

- Currently the team leader in charge of making a multiplayer online FPS game and assigned work to team members, reviewed code and integrated changes
- Working with transport layer protocols for socket programming to implement a major part of the networking architecture
- Reduced latency by using dead reckoning, worked on VOIP and implemented networked gameplay features

Game Engine Architecture (PrimeEngine)

Aug 2017 - Present

- PrimeEngine is a game engine made by a graduate course professor
- Implementing parts of the game engine like bounding volumes, frustum culling, navmesh traversal, etc in C++ using Visual Studio

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++

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
- Implemented an AI navigation system for the tigers to track the player down

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

SKILLS

Languages	: Java, C++, C# (certified), PHP, JavaScript, Python, HTML, CSS, Haskell, SQL, MYSQL, TSQL
Libraries/Frameworks	: jQuery, OpenGL, AngularJS, Cocos2dx, Scrapy, CloudSight API, Deepomatic API, ReactJS, Bootstrap
Software/Tools	: Perforce, Github, Visual Studio, Unity, VR, Android Studio, Xcode, Sublime, Blender, Maya, MS Office
Operating Systems	: Windows, Ubuntu, Mac OS
Services/Protocols	: AWS, Microsoft Azure, REST APIs