Ratan George Senapathy

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EDUCATION

University of Southern California (USC), (GPA: 3.75/4.00)　　　　　　　　　　**May 2018 Candidate**
Master of Science in Computer Science
Manipal Institute of Technology, Mangalore, 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 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
- Implemented an AI navigation system for the tigers 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 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, mesh loading and physics 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

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