

Ratan George Senapathy

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EDUCATION

University of Southern California(USC), California (GPA: 3.75/4.0)

2018 Candidate

- ◆ Master of Science in Computer Science
- ◆ Selected Coursework: Foundations of Artificial Intelligence, 3D Graphics and Rendering, Algorithms, Web Technologies
- Professional Writing and Communication for Computer Scientists, Game Engine Development, Networked Games

Manipal Institute of Technology, Karnataka, India (GPA:8.56/10.0)

2016

- ◆ Bachelors in Technology in Computer Science and Engineering
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SKILLS

Languages: Java, PHP, Haskell, C++, C#, Javascript, HTML, CSS, Python, SQL

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

Softwares/Tools: Unity3d, Android Studio, Xcode, Github, Visual Studio, Sublime

Operating Systems: Windows, Ubuntu, Mac OS

Services/Protocols: AWS, Microsoft Azure, REST APIs

WORK EXPERIENCE

Frenzy Dev

Jan 2017 onwards

- ◆ Increased accuracy of a fashion detection API that returns information about products pictured in a blog or an image
- ◆ Integrated third party image recognition APIs including Cloudsight and Deepomatic for image recognition
- ◆ Currently working on migrating product to IBM Watson
- ◆ Co-inventor in a patent application for the API

SanDisk India Device Design Centre Ltd, Bengaluru, India

Jan 2016 - May 2016

- ◆ Designed a 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

- ◆ Designed and developed a user friendly data tracking tool to detect job failure on SQL Server and gave a visual representation of the job and database status
- ◆ Reduced number of work hours for searching for various errors by around 20% - 30%

Parkyeri, Istanbul, Turkey

June 2014 - July 2014

- ◆ Linked various java libraries together, documented various relationships and interactions between libraries
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PROJECTS

- ◆ **Tap Color Score** - Cocos2dx Game
 - Programmed a 2d game using cocos2dx game engine for android and simulated reflection from plane surfaces
- ◆ **Pool Crush** - Unity3d game
 - Developed a 3D game based on infinite path generation
- ◆ **Missile Shooter** - Unity3d game
 - Created a 2D game and submitted it for a game jam
 - Coded a targeting system using vector math
- ◆ **Colorful Fish Catcher** - Unity3d game
 - A 2D game designed and submitted it for a game jam
 - It is a clicker based game
- ◆ **Swamp Pets** - Unity3d game
 - A first person shooter game
 - Implemented ray casting, lighting, animations and terrain design
- ◆ **Hunter Island** - Unity3d game
 - A 3d first person shooter game
 - Generated the game terrain through procedural generation
 - Engineered a navigation system for enemies to attack the player
- ◆ **Board Game** - AI based game
 - Made a board game in java using MINIMAX algorithm and Alpha-Beta pruning
 - Worked with various heuristics so as improve the algorithmic performance
- ◆ **Computer Graphics Engine** - C++ based Graphics Engine
 - Created a basic 3d graphics engine for a class project
 - Programmed frame buffers, model view to screen view conversion algorithms, flat, gouraud and phong shading mechanisms, performed texture mapping both from a texture image and procedurally and devices an antialiasing algorithm
- ◆ **Deferred Shading Project** - OpenGL based project
 - Implemented a deferred shading algorithm as a team project in OpenGL for a graduate course
- ◆ **Facebook Search Website**
 - Created a website in php, javascript, jQuery and angularJS and called FB and Google maps API to get details about FB users, places, groups, events and pages and implemented REST APIs for it
- ◆ **Facebook Search App** (Android)
 - An app which uses the above mentioned project's REST API calls to display the results
- ◆ **Programming Language** - A first order logic based programming language
 - It validates or invalidates queries based on facts given as input
 - Implemented FOL resolution algorithm to perform validation