

Ratan George Senapathy

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EDUCATION

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

- ◆ *Masters in Computer Science, August 2016 onwards(On Going)*
- ◆ Selected Coursework: Foundations of Artificial Intelligence(CSCI 561), 3D Graphics and Rendering(CSCI 580), Algorithms(CSCI 570), Web Technologies(CSCI 571), Professional Writing and Communication for Computer Scientists(CSCI 598)

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

- ◆ *Bachelors in Technology in Computer Science and Engineering(July 2012 - May 2016)*
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SKILLS

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

Libraries/Frameworks: jQuery, OpenGL, REST APIs, 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 (January 2017 onwards)

- ◆ Increased the accuracy of a fashion detection API that takes input images or fashion blogs and tell you where you can buy the product from by 20%
- ◆ Integrated third party image recognition APIs like cloudsight and deepomatic for image recognition and currently working on migrating it to IBM Watson
- ◆ Co-inventor in the patent application

SanDisk India Device Design Centre Ltd, Bengaluru, India (January 2016 - May 2016)

- ◆ Designed a python based tracking tool to track invalid executions paths in firmware for more efficient firmware testing
- ◆ Reducing the debugging time by 5 to 10 percent

Microsoft IT, Hyderabad, India (June 2015 - July 2015)

- ◆ Designed and developed a user friendly data tracking tool which detects whether certain jobs failed while running scheduled jobs on SQL Server and gave a visual representation of the job and database status
- ◆ Reduced the number of work hours for searching for various error and bugs by around 40 to 50%

Parkyeri, Istanbul, Turkey (June 2014 - July 2014)

- ◆ Could take up the task of linking the various java libraries together, document the various relationships and interactions between the libraries and worked on java servlets
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PROJECTS

- ◆ **Tap Color Score** - Cocos2dx Game
 - Made a 2d game using cocos2dx game engine for android and implemented reflection from plane surfaces using physics and maths
- ◆ **Pool Crush** - Unity3d game
 - Made a 3D game that implemented infinite path generation
- ◆ **Missile Shooter** - Unity3d game
 - Created a 2D game and submitted it for a game jam
 - Implemented a basic 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 game which is fun to play
- ◆ **Swamp Pets** - Unity3d game
 - A first person shooter game
 - Implemented ray casting, lighting, animations and terrain design for the game
- ◆ **Hunter Island** - Unity3d game
 - A 3d first person shooter game
 - Implemented procedural terrain generation
 - Created a navigation system for enemies to attack the player
- ◆ **Board Game** - AI based game
 - Implemented a board game in java using MINIMAX algorithm and Alpha-Beta pruning
 - Worked with various heuristics so as to improve the performance of the algorithm
- ◆ **Computer Graphics Engine** - C++ based Graphics Engine
 - Created a basic 3d graphics engine for a class project
 - Implemented features like frame buffers, model view to screen view conversion, flat, gouraud and phong shading, texture mapping both from a texture image and procedurally and antialiasing.
- ◆ **Deferred Shading Project** - OpenGL based project
 - Implemented a deferred shading algorithm as a team project in OpenGL for my graduate class
 - Wrote a paper on it for the class
- ◆ **Facebook Search Website** - Website
 - Created a website in php, javascript, jQuery and angularJS that uses the FB API 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 App
 - Created an android app which uses the above mentioned project's REST API calls to display the results in an android app
- ◆ **Programming Language** - A first order logic based programming language
 - Created a basic first order logic programming language(FOL)
 - It took facts and queries as inputs and validates on invalidates the queries based on the facts inputted.
 - Implemented FOL resolution algorithm to perform the validation