ANANYA ACHARYA

ANANYA.C.ACHARYA@GMAIL.COM

ananyaacharya.com | 213-422-8845

ABOUT

Multi-faceted and an efficient professional with a diverse skill set and experience encompassing web development, software development and server administration. Seeking a full-time opportunity as a computer science engineer.

ACADEMIC PROJECTS

SCALABLE NETWORKED GAMES INFRASTRUCTURE USING ELASTIC CLOUD COMPUTE

(Directed Research Project - Fall 2015)

Infrastructure that processes real-time scientific computations from large scale multiplayer MMORTS game on cloud platforms. Working on implementing path finding algorithm for N-Body simulation using OpenCL kernel to split computation across node servers.
Results - Simulations on low-end smartphones are 2.5x faster than Core i7.

iOS App - ROOMMATE ALARM KILL

(HackSC 2015)

Developed an alarm clock, that has an added feature to allow a roommate/s to turn-off the alarm on your phone after a set number of snooze-cycles from their mobile device. http://devpost.com/software/alrm-kill-y37pde

INFORMATION RETRIEVAL & SEARCH ENGINES – NASA POLAR DATASET *(Spring 2015)*

Crawled three polar and arctic data repositories using Apache Nutch and Tika. Built two URL filter plugins for Nutch to perform de-duplication at the time of crawling. Designed and implemented content-based and link-based ranking algorithms on the indexed data using Solr and Lucene. Constructed Polar data visualization using D3.js and Banana Analytics.
youtube.com/watch?v=ao6v5QQsFFY

ARTIFICIAL INTELLIGENCE – REVERSI GAME

(Fall 2014)

Developed a program that determines the best possible moves for a player, looking at N-moves ahead (depth) using adversarial search algorithms with positional weight evaluation functions.

3D GRAPHICS – SCREEN SPACE AMBIENT OCCLUSION *(Fall 2014)*

Extended GzLibrary to implement real-time screen space ambient occlusion, a technique developed for the 2007 video game Crysis, using the depth buffer. This improved rendering frame rate by 30%.

EDUCATION

2014 - NOW

MASTER OF SCIENCE - Computer Science

(Expected graduation - Dec 2015)
University of Southern California
Los Angeles, California 90089
GPA: 3.54
Courses: Analysis of Algorithms, Information Retrieval & Search Engines, Operating Systems, Artificial Intelligence, Web Technologies, 3D Graphics & Rendering, Animation & Simulation

2007 - 2011

BACHELOR OF ENGINEERING - Information Science and Engineering

Visvesvaraya Technological University
Karnataka, India 590014
Grade: First class with distinction
Project: Job scheduling in a grid computing environment.

EXPERIENCE

2014 - NOW

GRADUATE ASSISTANT - The Graduate School Office of the Provost, USC

Web Developer and Server Administrator.
Integrated SpreadJS into PhD Processing web application, providing javascript control to the existing ASP.NET MVC5 application.
Built Fellowship Travel grant processing web application. Planned & implemented migration of USC Graduate School physical server infrastructure to virtual environment.

2011 - 2013

ASSOCIATE SOFTWARE ENGINEER - CSC

Computer Sciences Corporation India Pvt Ltd

Application development & application patching. Worked on building updates for the existing Rio-Tinto internal operations application.
Developed scripts to automate deployment and installation of patches and updates. Worked for a while on the server infrastructure operations team.

ACHIEVEMENTS

AUG 2012

RECOGNITION OF LEADERSHIP AWARD

RioTinto Wintel Team

Development of application patches.

JAN 2012

RECOGNITION OF OUTSTANDING WORK AND INNOVATION

Automation of server-infrastructure operations.

SKILLS

- C, C++
- JAVASCRIPT
- SQL
- HTML, CSS, PHOTOSHOP
- PYTHON, JAVA
- D3.JS, REACT JS