

# Anandh Somasundaram

asomasun@andrew.cmu.edu | 412.425.4273

## EDUCATION

**CARNEGIE MELLON UNIVERSITY** PITTSBURGH, PA  
MS-IT IN SOFTWARE ENGINEERING, DEC 2015  
SCHOOL OF COMPUTER SCIENCE | QPA : 3.77/4.0

**AMRITA UNIVERSITY** MAY 2012 COIMBATORE, INDIA  
BTech IN INFORMATION TECHNOLOGY | CGPA : 7.1/10

## PROJECTS

### VOSSM | CMU STUDIO PROJECT

May 2015 - Dec 2015 | Team Size - 3 | Role - Architect, Developer

- Using this, Researchers can meter their use of scientific software
- Designed the system architecture to satisfy **Extensibility**, **Data Reliability** and **Availability** quality attributes
- Developed plugins(**Python**) and UNIX daemons(**Shell**) to collect usage data from lab machine. A Server(**Python, Django**) to collect and crunch the usage data sent by the lab machines. A Dashboard(**HTML, JS, CSS**) to configure data aggregation and generate summary report

### ROVER COMMANDER TOOL -FUNDED BY CMU RI AND NASA

Jul 2014 - Apr 2015 | Team Size - 4 | Role - Architect, Developer

- Enables scientists to generate and monitor the operations performed by an autonomous robot, Zoe
- Designed the system architecture to satisfy **Modifiability** and **Usability** quality attributes. Followed **SCRUM** software development process
- Developed a web application using **Python**, **Django** and **MongoDB** stack

### WEBSITE UPTIME MONITOR

Jun 2015 - Aug 2015 | <http://54.200.90.145:8002/>

- Built the application using **MEAN stack**. **Node.js** tracks the website realtime and broadcasts the status of the website to all connected clients using **Socket.io**
- Generates graphs for the response time using **amCharts**. Alerts through email or SMS when the website goes down

### POSTERIZE

May 2015 - Aug 2015 | Team Size - 4 | Role - Android Developer

- Designed and implemented **Android** and **iOS** application that enables users to print large posters using A4 sheets right from their home
- Developed an algorithm to optimize the number of sheets used for printing
- Implemented a camera ruler to measure poster's dimension - One of its kind
- Hosted a simple **PHP file server** in **AWS** and uploaded the generated poster from android app using **MultipartEntity** in Android **HttpPost**

### BOGGLEBOARD SOLVER FEB 2015 | [BOGGLER.ANANDHSOMU.COM](http://BOGGLER.ANANDHSOMU.COM)

- **C++** - Algorithm using **Tries** Data Structure - efficiently finds the words in the boggle board
- **Python, Django** - web framework
- **HTML, JS, css, jquery** - web application UI

### PANDA - SENTIMENT ANALYZER | HACKATHON

Mar 2014 | Team Size - 3 | Role - Designer, Developer

- Web application created using **Python** and **Flask**
- User searches for a product in Panda. It looks for review of that product in multiple e-commerce websites, twitter and also fetches CNET's rating
- Does **sentiment analysis** on those reviews fetched and classifies them as positive, negative and neutral. **Feature extraction** is also done on the product. Used **RabbitMQ** message broker to pass tweets to sentiment analyser

## EXPERIENCE

### INFOSYS LTD.

#### SYSTEMS ENGINEER

Jun 2012 - Jun 2014 | Chennai, India  
- Worked on Oracle Identity Manager 11g, Oracle Access Manager 11g for providing web security to a leading Japanese car manufacturer  
- Secured and monitored close to 100 websites, web services, web applications and desktop applications using Oracle IDM tool

## LINKS

GitHub: [github.com/yesyayen](https://github.com/yesyayen)

LinkedIn: [/in/anandhsomasundaram](https://in.linkedin.com/in/anandhsomasundaram)

Twitter: [@anandh\\_somu](https://twitter.com/anandh_somu)

Website: [anandhsomu.com](http://anandhsomu.com)

## SKILLS

### LANGUAGES

Extensive: C++ • Java • Shell

Comfortable: Python • HTML •

Javascript - AJAX, JQuery

### APP FRAMEWORK

Comfortable:

MEAN stack • Django • Bootstrap

### TECHNOLOGY

Extensive: Git • Unix

## COURSEWORK

### GRADUATE

- Architectures for Software Systems
- Introduction to Computer Systems
- Managing Software Development
- Mobile Application Development for Android and iOS
- Mobile to Cloud: Developing Distributed Applications

## HACKATHONS

ThoughtWorks, India (Oct 2013)

- Won Best App award

Save the Hacker, Freshdesk, India (Mar 2014)

InMobi Hackday, India (Oct 2014)

## CERTIFICATIONS

Redhat Certified Engineer (RHCE)

May 2015 - Present

MongoDB 101 Jul 2014 - Apr 2015

## **SIMPLE UNIX SHELL**

Jun 2015

- Developed a simple UNIX shell in C - supports foreground and background jobs, and executes built-in commands
- Monitors and handles signals (**SIGINIT, SIGKILL, SIGTERM etc.**) that are sent to those jobs. Also shell will reap defunct processes

## **LRU CACHE SIMULATOR**

Jun 2015

- Wrote a cache simulator in C using **LRU** policy which, simulates the hit/miss behavior of a cache memory on valgrind traces
- Outputs the total number of hits, misses and evictions