Anandh Somasundaram

asomasun@andrew.cmu.edu | 412.425.4273

EDUCATION

CARNEGIE MELLON UNIVERSITY Dec 2015
MS-IT in Software Engineering
School of Computer Science | QPA : 3.77/4.0

AMRITA UNIVERSITY May 2012
BTech in Information Technology | CGPA : 7.1/10

ACADEMIC PROJECTS

VOSSM | CMU Studio Project
May 2015 - Dec 2015 | Team Size - 3 | Role - Architect, Developer

- Researchers can meter their use of open source 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 astrobiological 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

UNIX SHELL
Jun 2015

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

PERSONAL PROJECTS

BOGGLEBOARD SOLVER Feb 2015 | boggler.anandhsomu.com

- **C++** - Algorithm using **Tries** Data Structure - efficiently find the words
- **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**
- Searches product reviews across multiple e-commerce websites, twitter and also fetches CNET's rating
- Does **sentiment analysis** on reviews fetched and classifies positive, negative and neutral. **Feature extraction** done for the product. Used **RabbitMQ** message broker to pass tweets to sentiment analyser

EXPERIENCE

INFOSYS LTD.
Systems Engineer
Jun 2012 – Jun 2014 | Chennai, India
- Configured 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**
LinkedIn: **/in/anandhsomasundaram**
Twitter: **@anandh_somu**
Website: **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
- Cloud Computing*
- Mobile Application Development for Android and iOS

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

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 one of a kind **camera ruler** to measure poster's dimension
- Hosted a simple **PHP file server** in **AWS** and uploaded the generated poster from android app using **MultipartEntity** in Android **HttpPost**

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