

EDUCATION

NORTHWESTERN UNIVERSITY
MS IN COMPUTER SCIENCE
Expected Dec 2016 | Evanston, IL
Cum. GPA: N/A

PES UNIVERSITY
BE IN COMPUTER SCIENCE
Grad. June 2013 | Bangalore, India
Distinction Awardee
MHRD Scholarship Recipient
Cum. GPA: 8.50 / 10.0

LINKS

Github:// [sandeeppraju](#)
LinkedIn:// [sandeepprajup](#)
Twitter:// [@sandeepprajup](#)
StackOverFlow:// [sandeep-raju](#)

RELEVANT COURSEWORK

GRADUATE

Machine Learning
Neural Networks
Network Security

UNDERGRADUATE

Algorithms of the Intelligent Web
Cloud Computing
Unix & System Programming
Computer Networks
Operating Systems
Design and Analysis of Algorithms
Data Structures

SKILLS

PROGRAMMING

Python • Go • SQL
HTML • CSS • JavaScript
Sass • C • C++ • Java
Shell • PHP

DESIGN

Adobe Photoshop • Balsamiq

OTHER TECHNOLOGIES

Django • Flask • Gevent • NodeJS
PostgreSQL • Redis • Git
AWS • Wireshark • Emacs
Heroku • Linux • Bootstrap

EXPERIENCE

PLIVO INC. (YC S12) | PRODUCT ENGINEER

June 2013 – Aug 2015 | Bangalore, India

- Was part of a 3-member Product Engineering team responsible for architecting, building & scaling the platform.
- Authored an open source rate limit queuing system called SHARQ.
- Developed a distributed Call & SMS dispatch system and a Fraud detection & alerting system.
- Led the process of porting the SMS routing and billing system to Go.

SHIPPR.IN | SOFTWARE DEVELOPMENT CONSULTANT

Jan 2015 – Sept 2015 | Bangalore, India

- Developed the real-time vehicle geo-tracking framework in NodeJS, SocketIO and Redis.
- Designed the PostgreSQL database models and the REST APIs using Django REST Framework.

PRACTO TECHNOLOGIES | SOFTWARE ENGINEERING INTERN

Jan 2013 – May 2013 | Bangalore, India

- Developed the PUSH notification backend for Practo Hello application.
- Integrated a telephony service provider to Practo Hello.

ALPHAMATTERS ADVISORS | SOFTWARE ENGINEERING INTERN

Nov 2012 – Dec 2012 | Bangalore, India

- Developed SOAP & REST APIs for their core stock prediction system.
- Plotting & regression analysis of stock market data in realtime.

PROJECTS

SHARQ - A RATE LIMITING QUEUING SYSTEM

Jul 2014 – Aug 2014 | Plivo Inc., Bangalore, India

- Architected and implemented a rate limiting queue based on a novel approach by Alan Shreve.
- The project was eventually open sourced and currently available at [sharq.io](#).
- A few startups are using SHARQ in their infrastructure as of today.

WEB BASED TELEPHONY SYSTEM ON A PRIVATE CLOUD

Jan 2013 – May 2013 | PES University, Bangalore, India

- Created a platform to abstract the process of managing a telephony infrastructure on the cloud.
- Designed a technique to offload call-flow logic to a system connected over the network.
- Prototyped a new JSON based format to represent a call flow or an IVR.

A WEIGHT-BASED PERSONALIZED RECOMMENDATION SYSTEM FOR MOVIES

Aug 2012 – Dec 2012 | PES University, Bangalore, India

- Created a weight based recommendation system using graph as the primary data structure.
- A prototypical movie explorer software was built to survey the effectiveness of the algorithm.
- Findings of this research received critical reviews and invaluable feedback from WWW2014 reviewers.

PROOF OF CONCEPT: HADOOP AS A SERVICE ON OPENSTACK

Aug 2012 – Dec 2012 | Center of Cloud Computing and Big Data, Bangalore, India

- Built a proof of concept to allow Hadoop to be run seamlessly on OpenStack.
- Benchmarked the performance impact on Hadoop for reading data over iSCSI vs directly from disk.
- It was confirmed that using root-disk rather than Cinder volumes had substantial performance gain.

CONFERENCE & WORKSHOP PRESENTATIONS

2014	PyCon	SHARQ - An API queuing system built at Plivo!
2013	PES	Git - The distributed content tracking system
2012	IIIT-B	Building mobile interfaces with Adobe Photoshop

EXTRA CURRICULAR ACTIVITIES

- Co-founder and active member of the PES Open Source Community at PES.
- Core organizer of MIT Design Innovation Workshop 2013 & PES campus hackathons (Ayana & #code).
- Member of the design team for PES annual magazine (Eclat).