

Sandeep Raju Prabhakar

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Education

Northwestern University - Evanston, IL
Master of Science in Computer Science - GPA: 3.76 / 4.00

Expected Dec 2016

PES University - Bangalore, India
Bachelor of Engineering in Computer Science - GPA: 8.50 / 10.00

Jun 2013

Technical Skills

Programming:

- ☐ **Proficient:** Python, C, SQL, HTML, CSS
- ☐ **Familiar:** Go, C++, Java, Linux Shell, PHP, JavaScript

Design / User Experience: Adobe Photoshop, Balsamiq

Other Technologies:

- ☐ **Proficient:** Django, Flask, PostgreSQL, Redis, Git, Emacs, Linux CLI
- ☐ **Familiar:** Gevent, NodeJS, MySQL, Amazon Web Services, Heroku, Bootstrap, Wireshark, WordPress

Work Experience

Introduction to Programming (Python) - Northwestern University, EECS Department, Evanston, IL

Jan 2016 - Mar 2016

Teaching Assistant

- ☐ Conducting recitation sessions for a class of 52 to review the course content & discuss the assignments.
- ☐ Holding office hours to help students with any questions on the lab and assignments.
- ☐ Helping the instructor by giving feedback on course content prior to each class.

Plivo Inc. (YC S12) - Bangalore, India

Jun 2013 - Aug 2015

Product Engineer

- ☐ Was part of a three member 'Product Engineering' team responsible for architecting, building and scaling the platform.
- ☐ Authored an open source rate limit queuing system called SHARQ (<http://sharq.io/>).
- ☐ 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 - Bangalore, India

Jan 2015 - Aug 2015

Software Developer Consultant

- ☐ 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 - Bangalore, India

Jan 2013 - May 2013

Software Engineering Intern

- ☐ Developed the server side PUSH notification backend for Practo Hello mobile application.
- ☐ Integrated a cloud telephony service provider to Practo Hello web application.

Alphamatters Advisors - Bangalore, India

Nov 2012 - Dec 2012

Software Engineering Intern

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

Project Experience

Mobile Risk Management - EECS Department, Northwestern University, Evanston, IL

Jan 2016 - Mar 2016

Researcher & Software Developer

- ☐ Building a technique to model mobile phone usage patterns to classify the mobile phone user as 'owner or not'.
- ☐ Working on developing an online binary classification model based on support vector machines.

NUvention: Web + Media - EECS Department, Northwestern University, Evanston, IL

Jan 2016 - Mar 2016

Product Developer

- ☐ Building a mobile application that simplifies the entire experience of dining at restaurants with your friends.
- ☐ In the process of prototyping an MVP using supersonic framework, conducting user interviews and designing architecture.

Volunteer Discovery Platform - EECS Department, Northwestern University, Evanston, IL

Jan 2016 - Mar 2016

Product Developer & UX Designer

- ☐ Building a discovery platform for Charities / Non-profits to connect with people interested to volunteer.
- ☐ As a part of the 'Human Computer Interaction' course, the focus is to present our take on the intuitive user interface.
- ☐ Working on prototyping the user interface using MarvelApp & Adobe Photoshop and implementing in ionic framework.

SHARQ: An open source rate limiting queuing system - Plivo Inc., India, Bangalore

Jul 2014 - Aug 2014

Author

- ☐ Architected and implemented a rate limiting queue based on the novel approach by Alan Shreve.
- ☐ The project was eventually open sourced and currently available at <http://sharq.io> and Github.
- ☐ A few startups are using SHARQ in their infrastructure as of today.

Web based Telephony System on a Private Cloud - PES University, India, Bangalore

Jan 2013 - May 2013

Software Developer

- ☐ 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 - PES University, India, Bangalore

Aug 2012 - Dec 2012

Researcher & Software Developer

- ☐ 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 the research received critical reviews and invaluable feedback from WWW2014 reviewers.

Conference and Workshop Presentations

PyCon India 2014 - Bangalore, India

Sept 2014

Technical Speaker

- ☐ Selected from a pool of more than hundred talk proposal to present my project at PyCon India 2014.
- ☐ Presented a talk titled "SHARQ - An API queueing system built at Plivo!" based on the project I authored.

PES Open Source: Tech Thursdays - PES University, Bangalore, India

Feb 2013

Workshop Presenter

- ☐ Conducted a technical hands-on workshop on "Git - the distributed version control system".
- ☐ Handled topics from basics like add, commit to advanced topics like Git workflow, interactive rebase, Git bisect, Git reverts.

Student Nokia Developer Workshop - IIIT-B, Bangalore, India

July 2012

Workshop Presenter

- ☐ Conducted a day-long workshop on building user interface components using Adobe Photoshop.
- ☐ The workshop was attended by more than hundred students from universities all over India.

Awards and Scholarships

Distinction Awards - PES University, Bangalore, India

Aug 2009 - Jun 2013

- ☐ For academic excellence in multiple semesters during undergraduate studies.

MHRD Scholarship - Government of India, India

Aug 2009

- ☐ For academic excellence by securing high score in the Pre-University examination.