

Sandeep Raju Prabhakar

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Open to relocation across United States

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Education

Northwestern University - Evanston, IL Expected Dec 2016
Master of Science in Computer Science - GPA: 3.93 / 4.00

PES University - Bangalore, India Jun 2013
Bachelor of Engineering in Computer Science - GPA: 8.50 / 10.00

Technical Skills

Programming:

- ❑ **Proficient:** Python, SQL, HTML, CSS
- ❑ **Familiar:** JavaScript, Java, Go, C, C++, BASH, PHP

Design / User Experience: Adobe Photoshop, Balsamiq

Other Technologies:

- ❑ **Proficient:** Django, Flask, Ionic, PostgreSQL, Redis, Git, Emacs, Linux CLI
- ❑ **Familiar:** NodeJS, ReactJS, Spring boot, MongoDB, MySQL, AWS, Heroku, Bootstrap, AngularJS, WordPress

Work Experience

Expedia, Inc. - Chicago, IL Jun 2016 - current
Software Development Engineering Intern (Expedia Worldwide Engineering team)

- ❑ Developing a tool to automatically reconcile hotel room bookings from multiple third party hotel inventory providers.
- ❑ Working on simplifying the process of developing and deploying Java Spring Boot application on AWS Lambda.

Foodrop, Inc. - The Garage, Northwestern University, Evanston, IL Jan 2016 - current
Co-founder and Lead Software Engineer

- ❑ Co-founded Foodrop, an aggregated food ordering platform run by students as a part of NUvention entrepreneurship course.
- ❑ Designed and built the backend infrastructure along with the [mobile application](#) that powers the platform.
- ❑ Processed 300+ orders in a two-week trial run in spring 2016 at Kellogg School of Management, Northwestern University.

Introduction to Programming (Python) - Northwestern University, EECS Department, Evanston, IL Jan 2016 - Mar 2016
Teaching Assistant

- ❑ Conducted recitation sessions for a class of 52 to review the course content & discuss the assignments.
- ❑ Held office hours to help students, provided feedback on course content to instructor and prepared content for assignments.

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; led the process of porting the SMS routing and billing system to Golang.

Shippr.in - Bangalore, India Jan 2015 - Aug 2015
Software Development Consultant

- ❑ Developed the real-time vehicle tracking framework in NodeJS, SocketIO and Redis.
- ❑ Designed the backend architecture 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

Sulley: An open source framework for building SMS bots - Evanston, IL

Apr 2016 - Jun 2016

Author

- ❑ Developed a framework to help developers build SMS bots with very few files of Python code.
- ❑ Currently supports two major SMS providers (Twilio & Plivo) that can be seamlessly switched.
- ❑ Future plan is to add plugin support to the framework to make integrations easy.

Keep It Fresh: Predicting Restaurant Inspections - EECS Department, Northwestern University, Evanston, IL

Apr 2016 - Jun 2016

Software Developer

- ❑ Worked towards predicting restaurant health violations using open data from Yelp and City of Boston.
- ❑ Evaluated and implemented machine learning techniques like SVM, Bayes Nets, Decision Trees and Neural Networks.

Python Data Workflow Framework - EECS Department, Northwestern University, Evanston, IL

Jan 2016 - Mar 2016

Researcher & Software Developer

- ❑ Worked towards evaluating machine learning libraries that support online learning to aid a mobile security project with Tencent Inc, to model mobile phone usage patterns to classify the mobile phone user as 'owner or not'.
- ❑ Developed a data workflow framework on top of Vowpal Wabbit to help run large scale experiments.
- ❑ The results of this research has been submitted to the 'Computer and Communications Security (CCS 2016)' ACM conference.

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 private 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.