Arjun Naik *October 29, 1987*

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Summary

An organised, meticulous, and resourceful software engineering with a focus on building distributed systems.

After obtaining a Bachelor's degree in Computer Science and Engineering I spent a year working at a consultancy. Here I got my first experience of participating in large projects and the responsibilities that come along with it. After that I moved to a startup where I built web applications and started developing Android apps. After working for 2 years in the industry I decided to continue my education in Germany. Studying at TU Dresden in the Systems Engineering chair has given me a unique opportunity to participate is several diverse research projects. Today I'm working with large distributed infrastructures and particularly focussed on issues like performance and reliability. Today I work in the Site Reliability Engineering team at Zalando SE.

My goal is to work in an environment which fosters creativity and offers interesting challenges. Since I am a big proponent of open-source, I also wish that my work both utilises and contributes back to the community.

Experience

Zalando SE
BERLIN, GERMANY

Site Reliability Engineer — *August 2015 - Current*

Zalando SE is the largest e-commerce retailer in Europe. The tech stack is complex and diverse. I was hired as part of the SRE team which would assist other teams in the migration of the monolith in the datacenter to microservices in the cloud.My responsibility was the performance and reliability analysis of these new microservices. For this I designed a load test process along with monitoring. Analyses the performance of microservices under different loads. Assisted teams in choosing the right scaling strategies.

Technologies Used: Simian Army, AWS, locust, Flask, Swagger, AppDynamics.

TU Dresden
DRESDEN, GERMANY

Wissenschaftliche Hilfskraft — *Mar 2014 - Dec 2014*

As a part of the SREX(Secure Remote Execution) project developed a translator for C programs. A source C program is translated into a subset of C which can be encoded with redundant operations to ensure correct execution even in the event of bit-flips or other random transient errors.

More recently I have been working with distributed coordination services like ZooKeeper and Consul. I have been evaluating the efficacy and characteristics of the respective protocols(ZAB and Raft). Also implementing new features in Kazoo, a Python client library for Zookeeper.

Technologies Used: Python, Fabric, Apache ZooKeeper, C/C++, Scons, Consul, Mercurial

DMFS
DRESDEN, GERMANY

Application Developer — *Jan 2013 - March 2014*

DMFS develops data sync applications for the Android platform. I worked on the development of the Tasks app which uses the CalDav protocol to sync calendar data. This app was subsequently open-sourced and available on Github.Was also part of the team which developed an Android based Calendar Store.

But my primary role was as a Django developer. Developed a web service for the bulk-retail of mobile apps. The service used OpenSSL cryptography to sign and verify the source of the sold apps. Only apps with a valid key issued from the website could be activated. Also developed the Android SDK which integrates with existing third-party apps to provide this functionality.

Technologies Used: Python, Android, Django, OpenSSL, PostgreSQL, Git

Locus Labs
BANGALORE, INDIA

Web and Mobile Developer — *Jun 2011 - August 2012*

When I joined Locus Labs it was an unseeded startup which developed apps for the up-scale and savvy shopper. The main product Notikum finds offers and bargains for shoppers based on their profile. This involved collecting data from hundreds of websites. Joined the team which scraped the data and indexed it with Solr. Concurrently developed and maintained the website for this service. The surge in mobile apps necessitated that an Android app be developed which I initially managed and later coordinated with new hires.

After the startup pivoted was given further responsibilities. I was put in charge of the development of the new product Notiphi. Location based advertising was the primary goal of this service. Designed and implemented the initial prototype. Also developed the tools needed for the deployment and monitoring of the cloud-based infrastructure. Leveraged my previous Android experience to develop the Android SDK which is used by third-party developers to integrate this service into their apps.

Technologies Used: Django, Python, Android, Tornado, Fabric, Scrapy, Javascript, JQuery, MySQL, MongoDB, Redis, Git

Netbramha Studios   BANGALORE, INDIA
Web Developer   *Oct 2010 - May 2011*

Netbramha Studios is a design consultancy which develops aesthetic and content intensive websites. I was hired to handle the technical aspects: Maintenance of websites and minor front-end development. I also built websites using both third-party and in-house server frameworks. Used JQuery for front-end development and also did some basic layout and styling with HTML+CSS.

Technologies Used: PHP, CodeIgniter, CakePHP, JQuery, Javascript, Python, Django, SVN, Git

Please consult my LinkedIn Profile for references.

Education

Techniche Universität Dresden   DRESDEN, GERMANY
Master of Science, Distributed Systems Engineering   *2012 − 2014*

Completed courses in Security and Cryptography, Software Fault Tolerance and Dependable Systems besides the mandatory courses. Also worked in the Systems Engineering Lab and Software Fault Tolerance Lab. Under the guidance of Prof. Dr. Christof Fetzer completed my Master's Thesis in Zookeeper scaling. The proposed solution partitions the namespace which increases the throughput and avoids the negative effects of horizontal scaling.

BM Sreenivasaiah College of Engineering, Vivesvararya Technological University   BANGALORE, INDIA
Bachelor of Computer Science and Engineering   *2006 − 2010*

Major in Computer Science with a focus on Computer Architecture. Was also an editor of the departmental newsletter and a regular contributor. For my final year project developed a Wi-Fi enabled robot which could be controlled over the Internet. It also had a plethora of sensors which guided in navigation and control.

Projects

JoQuer: Turbo frequency scaling libraries

Current generation processors like the Intel Haswell series have the ability to temporarily boost the clock frequency through software. A C++ library was developed at the Systems Engineering chair at TU Dresden to provide this functionality to applications and manage the application threads. I constructed a Java library with a similar API. The library used JNI(Java Native Interface) to interact with the C++ library. After the library was implemented, benchmarked and recorded the results to compare the effect of boosting frequency in Java applications.

Studybloxx: Android list sync application (https://github.com/arjunrn/studybloxx-server)

For a course in Mobile Application Development my team developed an application for Android which syncs relational data across devices. The sync is performed through a Django web server using a REST API. To further improve the application functionality LibGit2 was cross-compiled to run on Android and sync data. Git is used to handle the issues arising out of concurrent modification of data from multiple sources.

Skills

Technical Specialities: Good skills in Python, Java, Javascript. Can also program in C/C++. Most experience with Python. Interested in using Go language in a professional setting. Version Control Systems: Git, Mercurial and SVN. Experience with developing Android applications. Also used and configured databases like MySQL, PostgreSQL, MongoDB and Redis. For the past 6 years have been using Linux both on servers and on desktops.

Natural Languages: English *(Bilingual Proficiency)*, Hindi *(Native)*, Kannada *(Native)*,German *(Limited proficiency)*.

Interests

Non-exhaustive and in no particular order: Science-Fiction, photography, hardware hacking, travelling, good coffee