

Aaditya M Nair

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EDUCATION

IIIT - HYDERABAD

B.TECH + MS (BY RESEARCH) IN
COMPUTER SCIENCE

Expected Apr 2019

Cum. GPA: 7.65

DELHI PUBLIC SCHOOL

Grad. April 2013 | Bhilai, India

LINKS

Blog://[BlogOfNair](#)

Github://[AadityaNair](#)

LinkedIn://[aadityanair](#)

COURSEWORK

Principles of Information Security

Error Correcting Codes

Cloud Computing

Operating Systems

Distributed Systems

Natural Language Processing

Introductory ML

SKILLS

Advanced

Linux System Administration • Python

Intermediate

Ceph • Libvirt • C

Familiar

ML • NLP

OTHER STUFF

Merit List for 2016-17

Ex Student Placement Coordinator

Amateur Violinist

WORK EXPERIENCE

GOOGLE | SUMMER OF CODE INTERN

May 2018 – Aug 2018 | Remote

- Worked with the CCEXtractor team during the summer on **Project Nephos**.

FACEBOOK | PRODUCTION ENGINEERING INTERN

June 2017 – Sept 2017 | London, UK

- Worked on improving hypershell, a push based massively parallel command execution tool.
- This is how Facebook runs ad-hoc commands on the **entire fleet**.
- Improved performance of some IO operations by **more than 90%**.

IIIT - HYDERABAD | STUDENT SYSTEM ADMINISTRATOR

Sept 2016 – present | Hyderabad, IN

- Manage services run by the institute that serve **~3000 people** at any time
- Available **24hr on-call** for all incident response and remediation.
- Auditing and hardening current security infrastructure.
- Involved in **mentoring the next generation** of student sysadmins.

IIIT - HYDERABAD | RESEARCH ASSISTANT: SPCRC

May 2015 – present | Hyderabad, IN

- Working under the advisory of Dr. Lalitha Vadlamani on the recovery features of **Reed Solomon** codes.
- Trying to create new **erasure codes** with interesting properties.
- Also tasked with managing the the various machines that make our lab's **cluster**.

SELECTED PROJECTS

PROJECT NEPHOS

This is a tool that will be used by CCEXtractor to record large number of freely streamable channels, postprocess them and upload to a storage of choice. Current support is for **Google Drive** and **FTP**.

HIGH AVAILABLE DIRECTORY SERVER

Setup a highly available system for the institute's **LDAP** servers using **Pacemaker**.

This setup was resilient to failure of **one host** serving as an hot backup. All

communications are secured by **TLS**.

Also migrated data from the old setup to the new one with **zero downtime**.

CLOUD ORCHESTRATION

Developed an orchestration layer which leverages **libvirt**'s python API to provision new VMs onto various machines. Disk Space is provided using the distributed storage system like **Ceph**. The project was implemented as an RESTful service using **Flask**.

HTTP PROXY

A multi-threaded program written in Python which proxies HTTP requests and forwards them. It also supports simple caching of requests.

PUBLICATIONS

(under review) A. M. Nair and V. Lalitha, **Maximally recoverable codes with hierarchical locality**. In 2019 *Twenty-Fifth National Conference on Communications (NCC 2019)*, Bangalore, India, Feb. 2019