

## Work experience

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### Software Engineering, and ML & AI Intern

07/2017 - Present

#### [Cognition Research Lab](#)

While Cognirel is in existence since 2015, they are now building a new product to make the process of learning better using innovations in ML, AI and educational psychology.

I am being mentored by [Mr. Ram Prakash H](#), who has 17 years of theoretical and practical experience in Machine Learning, and is a [MIT TR35 Innovator](#).

My role involves:

1. Learning Machine Learning and Artificial Intelligence
2. Implementing the concepts of ML and AI for building products that can be used for educating kids
3. Building the Backend and the Frontend for the product

### Backend Product Developer

08/2015 - 07/2017

#### [Squad \(Earlier SquadRun\)](#)

Joined Squad as one of the early members, and grew as the company grew. [The culture here](#) taught me a lot about problem solving and helped me develop an intuition for good design.

While at Squad, I worked with Python (Django), Postgresql, RabbitMQ, Celery. Some of the responsibilities involved:

1. Major contribution in building the backend for [Squad's Voice offering](#).
2. Built a workflow engine (think state machines + graphs + flowcharts) to facilitate flow of data and control within the system, customisable from the admin. This forms the core of Squad's operations now.
3. Built an ETL system for medium scale (reused Workflow Engine to create ETL pipelines and handle execution)
4. Setting up app, workers, queue, DB servers on AWS and other infrastructure setup.
5. Hiring activities and mentoring interns. Leading the effort for SquadRun to maintain an Engineering blog (difficult given how small the team is, and, thus, the bandwidth crunch).

### Backend Developer

03/2015 - 08/2015

#### [Pyoopil \(Acquired by UpGrad\)](#)

Responsible for designing and building the complete backend, mentored by the tech lead there. Tools used included:

1. Orchestrate (Now closed): A DbaaS providing a NoSQL database, with a little bit of graph functionalities.
2. Node (ExpressJS)
3. QuickBlox: Baas for chat. Handled mentions, channels and concept of rooms. Also built mechanisms to enable Direct Messaging.

## Projects

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### Go Morse

06/2017 - 06/2017

#### [Github](#)

Weekend fun project to motivate my younger brother to code (we will text each other in Morse, that was the bait). Also a great opportunity for me to explore Golang.

## Block Slack Users

11/2016 - 11/2016

[Github](#)

Chrome Extension that lets you hide messages from specific users and bots. Necessity is the mother of invention.

## Django Haystack

2016 - 2016

[Github](#)

Made a few, much-needed, changes to haystack. Read more about it in a post I wrote: [Elasticsearch, Django and Haystack](#).

## Django Log Analyser

07/2016 - 07/2016

[Github](#)

Faced a problem with visualising and analysing queries happening on our RDS, needed a way to get on-demand reports of the queries run on the DB. Built this pip installable library that downloads logs from RDS, runs goaccess over the logs, and uploads the report to S3. All of this is also linked on the admin panel.

## Open Source Contributions

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### Django

[Github](#)

The Web framework for perfectionists with deadlines. <https://www.djangoproject.com/>

Fun fact, my changes will be a part of Django 1.11 which is the last major release in 1.xx series, and also LTS.

### BigchainDB

[Github](#)

BigchainDB is a scalable blockchain database <https://www.bigchaindb.com/>

Contributions pending review.

## Education

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### B.Tech. in Computer Science

2012 - 2016

Maharaja Agrasen Institute of Technology, Delhi

Graduated with 69.9%

### 12th, Science with Computer Science

2011 - 2012

D.A.V. Public School, Sreshtha Vihar, Delhi

Secured a score of 94.8%, was among the top 0.1% scorers of Delhi.

Was also the Headboy of the School.