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# PRASHANT KUMAR

## SNAPSHOT

A software engineer currently engaged with Milvik Technology Services India Pvt Ltd having one year and eight months of professional experience. An engineering professional with a Master's Degree focused in Computer Science & Engineering from Malaviya National Institute of Technology Jaipur.

## WORK EXPERIENCE

- Feb 2018–Present **Software Engineer MILVIK India .**
- L2 Support Month End Automation -  
A web application developed for providing a dashboard for an L2 support team for their month-end tasks.
    - Used Django for backend service and its templating engine for UI rendering.
    - Remove the manual procedures which were error prone.
    - It reduces the time from many hours to just a few minutes.
    - All database operations ran in a transaction; no inconsistent state of the database even in case of application failure.
  - Data Migration Service -  
Migration service, a service which was one of the services in a stack of spring-backend microservices.
    - A spring boot enabled service integrated with Kafka.
    - A producer-consumer model where producer listens to the table on one of legacy data source and consumer consumes the same and stores at another data source of the platform databases.
    - The producer was Maxwell's daemon, an application that reads MySQL binlogs and writes row updates to Kafka.
  - Data Migration -  
An in-house Python solution for one shot Data Migration.
    - An Extract, Transform & Load (ETL) approach
    - Extract - mysqlclient, Transform - python script, Load - mysqlclient
- Nov 2017–Jan 2018 **Software Engineer Trainee CodeHall Technology Pvt. Ltd. Bengaluru .**
- College Connect -  
A web app for helping users (with varied roles) from the beginning of searching colleges to their seat allocation and college orientation for the students of different disciplines.
    - Django backed microservice architecture in conjunction with React for UI.
    - Discuss the Database and API design of each service built by team members.
    - Code develop for StudentProfile and News&Events services.

## PROJECTS

- **A Blog Web App** (Django)

A web application where registered users can write their blog and could post it. Any anonymous user

can view all blogs and could also filter blogs for a specific user. A registered user could modify/ delete their blog only.

Repo Link: <https://github.com/PrashantPST/django-blog.git>

- **Swiss Tournament** (Django) (React)

In the Swiss tournament, any player never gets eliminated. Instead, Everyone gets paired in a subsequent round based on their scores. The two closest score player would clash for the next round, and the winner is the one who earns the most points at the end of the tournament.

Front End Repo: <https://github.com/PrashantPST/swiss-tournament-frontend.git>

Back End Repo: <https://github.com/PrashantPST/swiss-tournament-backend.git>

- **Master's Thesis SAFETY:** Early Detection & Mitigation of TCP SYN Flood Utilizing Entropy in Software Defined Networking.

The thesis presents SAFETY, a novel solution for the early detection and mitigation of TCP SYN flood harnessing the programming and wide visibility approach of SDN using entropy for destination IP with the attribute of TCP flags.

## PUBLICATION

- **SAFETY:** Early Detection and Mitigation of TCP SYN Flood Utilizing Entropy in SDN  
**Publication/Publisher** - IEEE Transactions on Network and Service Management  
**Publication date** - 2018-07-31  
**Publication URL** - <https://ieeexplore.ieee.org/abstract/document/8423699/>

## TECHNICAL STACK

- **Programming Language:** (Java) (Python)
- **Web Framework:** (Django) (Spring Boot)
- **JavaScript Library** (React)
- **Database:**
  - **Relational:** (MySQL)
  - **Document:** (MongoDB)
- **Streaming Platform:** (Apache Kafka)
- **Version Control System:** (Git)

## ACCOLADES

- Secured AIR 653 in GATE 2015.

## EDUCATION

2015–2017 **M.Tech. in Computer Engineering** Malaviya National Institute of Technology Jaipur 7.33 CGPA.

2010–2014 **B.Tech. in Computer Science & Engineering** Govind Ballabh Pant Institute of Engineering & Technology Uttarakhand 76.04 %(Honours).