# Shashank Giri

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## Education

July,2016- Present **Indian Institute Of Technology, Indore**, Bachelor Of Technology, Computer Science and Engineering CGPA- 9.1/10 (upto 6 semesters)

## Awards and Achievements

- **All India Rank,1361** JEE Advanced 2016
- Qualified KVPY conducted by IISc Bangalore
- **Scholarship Awardee**, National Talent Search Examination (NTSE)
- **All India Rank, 57** ACM-ICPC 2018 online Indian Qualifiers.
- Secured 15th rank in Kanpur onsite round and 38th rank in Amritapuri onsite round of ACM-ICPC.
- **All India rank, 42** ACM-ICPC 2019 online Indian Qualifiers.
- Rated 2024 on codechef.

## Work Experience

**Software Engineering Intern, Dunzo**
(May,2019-Nov,2019)

- Worked on designing a stockout service which will keep track of supply of partners and demand with respect to tasks and will not allow task creation if supply of delivery partners is less than some threshold of demand.
- Thus this service will not allow the tasks to be queued if the system cannot assign a partner to that task.
- Used elasticsearch datastore for storing delivery partners data and querying the datastore every time a user reaches checkout page.
- Used redis cache keyed by geohash of precision 6 to store queued tasks count.

## Projects

**Text Compression Algorithms**

- Wrote compression Algorithms (from scratch) for text data in C++.
- Main focus was on using Huffman technique for compression(both static data and dynamic data).
- Was able to reduce the size of text file upto 1.7 times the original size.

**E-learning Portal**

- Full stack web development (from scratch) of an e-learning site.
- It was a database management project where MySql database was used and PHP for the backend part.
- Was able to integrate a lot of features required in a typical e-learning site.
- Some features include account creation, login,course creation, course evaluation, discussion forum, feedback from students.

**Optimisation Techniques-**

- Studied techniques used in unconstrained optimisation problems.
- Improved stochastic gradient descent method by applying techniques like adding exponential weighted average updates.
- The modified version of gradient descent took less than 10% of the steps required in traditional gradient descent method.

**License Plate Recognition System-**

- The system designed was for detecting License plate position and it's number from the image which will be taken when a vehicle enters the parking lot.
- Used Support Vector Machine with Linear Kernel as the learning Model for recognizing Latin Letters.
- Was able to detect and recognize License Plate Number accurately with 97% accuracy.

## Skills

**Languages:** C/C++, Python, Go, NodeJs
**Tools** : Git, Docker,
**Monitoring Applications** : Kibana, Newrelic
**Data Science :**Reinforcement Learning, Deep Neural Networks, RNN, CNNs.

## Relevant Coursework

Computer Programming Database Management
Data Structures and Algorithms
Theory Of Computation Operating Systems
Computer Networks Computer Architecture
Software Engineering Discrete Maths

Deep Learning Specialization- (By Andrew Ng on coursera).

## Extra-curricular Activities

- Organized workshops on college campus guiding juniors in algorithms and complex data structures.
- Designed questions for college sponsored **rated** contests on codechef, hackerrank and codeforces.