Shashank Giri

cse160001054@iiti.ac.in
Final Year Undergraduate g.shashank700@gmail.com
Computer Science and Engineering shashank98giri (github)
Indian Institute of Technology, Indore 9455884692 / 9755989774

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 microservice which will keep track of supply of partners and demand with respect to queued 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 metadata and querying the datastore every time a user reaches checkout page.
- Used redis cache (keyed by geohashes of precision 6) to store queued tasks count around a certain geospatial point.

Projects

Text Compression Algorithms

- Wrote compression Algorithms (from scratch) for text data in C++.
- Main technique used was Huffman compression algorithm (for both static data and dynamic stream of data).
- Was able to achieve an average compression ratio of 1.7.details

E-learning Portal

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

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-

- Designed a system for detecting License plate's position and it's characters from the image which will be taken when a vehicle enters a 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 Numbers with 97% accuracy.details

Skills

Languages: C,C++, Python, Go.
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).

Campus 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.