

# DIVYANSHU GOYAL

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## EDUCATION

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**Georgia Institute of Technology, Atlanta**

*August 2019 - May 2021*

→ M.S. Computer Science (**CGPA: 4.0**)

**BITS, Pilani**

*August 2011 - June 2016*

→ B.E. Computer Science and M.Sc. Mathematics (**CGPA: 8.75**)

## SKILLS

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**Courses:** Computer Vision, Deep Learning and Neural Networks, High Performance Computing, Advanced Operating Systems, Machine Learning, Information Retrieval, Data Structures and Algorithms, Database Systems.

**Programming:** C/C++, JAVA, Python

**Software & Tools:** Django, Docker, TensorFlow, PyTorch Jenkins, Github, IntelliJ, Azure, New Relic

## WORK EXPERIENCE

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**Adobe Inc., SanJose (AI/ML Application Intern)**

May 2020- July 2020

→ Built a framework to make relational datasets GDPR compliant.

→ Designed and implemented API endpoints for CustomerAI and AttributionAI, to track customer usage metrics.

**Adobe Inc., Bangalore (Software Engineer)**

July 2016- August 2019

→ Built an in-memory, distributed server capable of serving machine learning models at 35K QPS.

→ Reduced garbage collection by modifying the Prediction Algorithm (Field Factorization Machine).

→ Implemented Asynchronous Loggers(Disruptor architecture), a lock-free inter-thread communication library resulting in 10 fold higher throughput and lower latency.

→ Worked on Machine Learning Platform that provided data scientists capability to train and deploy machine learning models at scale without dealing with infrastructure requirements.

→ Designed and implemented capability to build custom data ingestion and processing pipelines.

→ Added support to provide custom methods for model validation and accuracy metric computation.

**Qubole, Bangalore (Software Engineer Intern)**

May 2015- July 2015

→ Implemented HIVE-JDBC storage handler which facilitated HIVE to create external tables on JDBC to avoid periodic data import into HDFS.

→ Added support for predicate-pushdown to reduce data transfer latency.

→ Implemented lazy split computation to enable child nodes to do split computation autonomously.

## PROJECTS

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**3-D Image Segmentation of Brain Tumor on MRI-Data**

→Built a 3D U-Net model to do image-segmentation on MRI data.

**Semantic Segmentation of Antarctic Satellite Imagery**

→Using ensemble based CNN to automate the extraction of geological features on Antarctica satellite images.

**Colorization of grey Scale videos**

→Used CNN's and LSTM's for automatic colorization of grey scale videos. Used CNN for encoding video frames and LSTMs for capturing temporal color pattern across frames.

**GTStore (Prototype implementation of Amazon DynamoDB):**

→Implemented various features and functionalities of Amazon DynamoDB. Main features include consistent hashing, virtual nodes, read repair, hinted handoff, membership detection via heartbeat packets. The prototype was built with a weak consistency model to support faster writes.

## ACADEMIC ACHIEVEMENTS AND EXTRACURRICULAR

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→ Teaching assistant for Advanced Operating Systems course at Georgia Tech.

→ Served as Teaching Assistant position for Network Programming Course at BITS Pilani.