GAURAV ARORA

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Education

Program	Institution	CPI/%	Year
M.Tech. (Computer Science and Engg.)	IIT Madras	8.19	2020
B.Tech. (Computer Engineering)	Jamia Millia Islamia	9.50	2018
XII - CBSE	Ramagya School, Noida	83.40	2013
X - CBSE	Ramagya School, Noida	83.60	2011

Projects

- **Hierarchical Locking on GPUs** — **CUDA,C++**
  M.tech Project(Guide: Dr. Rupesh Nasre) — *July 2019 - Present*
    - Implementing a **Dominator based locking mechanism** for graphs on GPU such that high degree of concurrency is maintained. Objective is to develop a parallel environment which is sustainable for large number of requests.
- **Amazon Product recommendation System** — **Python**
  Machine learning — *Dec 2017 - Jan 2018*
    - Used various frequency based techniques like bag of words, TF-IDF to get the similarity. Used semantic based techniques like Word2Vec to get better results.
- **Image Classification using Convolution Neural Networks(CNN)** — **Python, TensorFlow**
  Deep Learning — *Feb 2019 - March 2019*
    - Project aimed improving classification accuracy on Tiny ImageNet dataset using CNN architecture. Hyper Parameter Tuning and Dataset Augmentation used for better predictions.
- **Computing Clustering Coefficient of graphs** — **CUDA,C++**
  Graphical processing units — *March 2019 - April 2019*
    - Using tiling and shared memory techniques on GPU to speed up the calculation of the clustering coefficient of graphs. Achieved speed up of approximately equal to 7 over existing optimized serial implementation.
- **Sleepless** — **Java**
  Android application — *June 2017 - July 2017*
    - A smart alarm app using broadcast receiver and services in android. Alarm can only be stopped by solving a math question or by shaking the phone 40 times.
- **Weather App** — **Java**
  Android application — *May 2017 - June 2017*
    - Fetched data from open weather API using AsyncTask (a background running thread). Parsed JSON response from the API and displayed the useful information.

Achievements

- Secured **AIR 213** in GATE-2018 Computer Science.
- Secured a global rank of **615** in SnackDown-2017 conducted by codechef.
- Received **First price** in C/C++/Java code debug at Teknothon 2016 , Jamia Millia Islamia.
- Selected for the onsite round of **Smart india hackathon** 2018 held at Ahmedabad.
- **Stanford** - Completed machine learning course taught by Andrew Ng of Stanford university.
- **MIT open courseware** - Completed Introduction to computer science and programming course by MIT.
- **UPSEE** - Secured **AIR 1021** in UPSEE 2014.

Technical Skills

- **Skills**: Data structures and algorithms, GPU programming, ML/DL, OOP, Android, Flask.
- **Programming Languages**: C, C++, Java, Python, SQL.
- **Tools and Technologies**: TensorFlow, Android studio, Visual studio.

Experience and Positions of Responsibility

- **Samsung research institute(SRI), Noida**
    - Part of research and development team at Samsung Noida. — *Jun 2018 - Jul 2018*
- **Summer intern at KLA software**
    - Part of Ebeam team. — *May 2019 - Jul 2019*
- **Coordinator for CS trophy at Department of computer science, IIT Madras**
    - Member of CS Trophy organizing committee 2019. — *Feb 2019 - Mar 2019*
- **Coordinator for Spring Fest 2018 at Jamia Millia Islamia**
    - Coordinator for various technical events. — *Mar 2018 - Mar 2018*