

# AMIT GUPTA

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## EDUCATION

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### Stony Brook University • New York

Aug'16 - Present

Master in Science, Computer Science

Courses: Operating Systems, Computer Networks, Analysis of Algorithm, Big Data Analytic, Distributed Systems, Natural Language Processing, Visualisation(Big Data)

### Maulana Azad National Institute Of Technology • India

Aug'08- Jun'12

Bachelor of Technology, Computer Science

Courses: Algorithms and Data Structures, DBMS, Computer Networks, Data Mining, Unix Internals

## SKILLS

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### Programming Languages

Java, Python, C, C++, Shell

### Web Technology

HTML, CSS, Javascript, JQuery, AJAX, D3, Express, NodeJS, MEAN

### Database

MySQL, Mongo DB

### Technologies

Kernel Programming, Spark, MapReduce, Tensorflow, RNN, Selenium, Testng

## WORK EXPERIENCE

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### Nomura America Securities LLC

June 2017 - August 2017

Summer Technology Analyst

New York, USA

- Automation of regression testing ( proprietary tool for equity management) using Cucumber and Selenium
- Responsible for designing and development of the whole software suite. Implemented using multithreading and parallel processing concepts from Java 8.
- Bash script migration to python.

### Samsung Research Institute

July 2012 - August 2016

Software Engineer

Noida, India

- Involved in development and debugging of networking protocol related features.
- Developed different Interprocess communication commands viz. setting a particular frequency band, controlling the specific logging feature etc.
- Involved in the development and stabilization of principal stack selection mechanism in a dual sim phone.
- Fixed several bug which comes during standardization process (GCF/PTCRB )
- Awarded with **Certificate of Excellence** for significant contribution to the projects.

### CAIR, Defense Research & Development Organisaion

May 2011 - July 2011

Intern

Bangalore, India

- Studied several research paper on informed search based planning algorithm such as A\*, D\*, D\* Lite.
- Implemented D\*Lite algorithm and simulated it with Robot Operating System.

## KEY PROJECTS • [GITHUB HANDLE](#)

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- **Byzantine Fault tolerant Chain Replication-Shuttle:** Creating a prototype for BFCR Shuttle protocol as described in the paper. We are using distAlgo for the creation of async clients and message passing.
- **TrFS: A stackable tracing file system:** Created a tracing file system for kernel 4.0 below the VFS layer that will log some particular set of system call (e.g. open, read, write etc.) which can be used to reiterate the steps performed by the user.
- **Xmergesort-Custom System call:** Implemented system call that will take two files from user space and merge them based on the lexicographic order of the content in kernel space and create another merged file in user space
- **History based webpage caching system in android:** Created a web-page caching server to support the client with poor connectivity. Server caches the pages for the client(android) and then transfer these cached pages over websocket(fast) to the android phones.
- **Webapp in Nodejs for college:** Created a MEAN stack based portal for college which will help instructor in automated evaluation of programming assignments. It can keep track of all the submission of the student's assignment under various courses.
- **Movie Genre Classification using RNN:** Created a RNN based model to classify the movies based on their plot summary. We have employed skip-gram based word embeddings to train the RNN and used it further for classification
- **Pcap File Analyser:** Created a java program to analyse the pcap file using Jnet library. Detection of loss, number of streams, throughput, detection of triple duplicate acknowledgement, detection of RWND and congestion window size, detection of HTTP version.